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सत्यमेव जयते

TABLE OF CONTENTS.

	Page.
1. Government of India, Department of Commerce, Resolution No. 28-T. (2)/38, dated the 9th April, 1938	1
2. Press Communiqué issued by the Tariff Board on the 7th May, 1938	2
3. Questionnaires issued by the Tariff Board—	
(1) Questionnaire for Handloom Industry	3
(2) General Questionnaire	5
(3) Questionnaire for Importers and Traders	11
(4) Questionnaire for Silk and Artificial Silk Goods Manufacturers	13
4. Circular letters issued by the Tariff Board to all Provincial Governments, the Chief Commissioner, Delhi, and certain Indian States—	
(1) Letter No. 510, dated the 14th May, 1938	16
(2) Letter No. 544, dated the 24th May, 1938	17
(3) Letter No. 613, dated the 17th June, 1938	17
(4) Letter No. 639, dated the 27th June, 1938	17
5. Government of His Highness the Maharaja of Mysore—	
(1) Memorandum presented to the Tariff Board	17
(2) Letter dated the 22nd July, 1938	83
(3) Letter dated the 22nd July, 1938	97
(4) Letter dated the 22nd July, 1938	100
(5) Letter dated the 23rd July, 1938	129
(6) Letter dated the 30th July, 1938	138
(7) Letter dated the 14th August, 1938	158
(8) Statements regarding costs of production	166
(9) Statement regarding net available supply of silk	171
(10) Statement showing the average prices of Silk Waste	172
(11) Statement showing the total exports from Japan to various countries	173
(12) Statement showing the imports of Japanese Silk into England	173
(13) Statement showing the imports of Japanese Silk into British India	174
(14) Extract from the Textile Manufacturer, July, 1938	174
(15) Extract from the Textile Manufacturer Year Book, 1938	175
(16) Statements supplied at the time of oral evidence	176
(17) Letter from the Tariff Board No. 841, dated the 9th August, 1938	176
(18) Letter dated the 28th August, 1938	177
(19) Letter dated the 10th September, 1938	184
(20) Letter dated the 10th September, 1938	187
(21) Letter dated the 11th November, 1938	196
(22) Demi-official letter dated the 11th November, 1938	203
(23) Letter dated the 12th November, 1938	205
(24) Letter from the Tariff Board No. 1330, dated the 4th December, 1938	208
(25) Letter dated the 14th December, 1938	208

	PAGE.
6. Government of His Highness the Maharaja of Jammu and Kashmir—	
(1) Letter No. D 6261/38, dated the 18th July, 1938 . . .	208
(2) Letter No. 113-R./38, dated the 25th July, 1938 . . .	210
(3) Supplementary information and statements handed in . . .	243
(4) Supplementary information and statements supplied by the Director of Sericulture, Kashmir, Srinagar . . .	246
(5) Supplementary information forwarded by the Director of Sericulture, Jammu . . .	257
(6) Letter No. D. 9308/38, dated the 14th October, 1938 . . .	287
(7) Letter No. 371, dated the 15th November, 1938 . . .	290
(8) Demi-official No. 1, dated the 18th November, 1938 . . .	292
(9) Telegram No. 1911, dated the 30th November, 1938, from the Tariff Board . . .	292
(10) Letter No. 1056, dated the 6th December, 1938 . . .	293
(11) Telegram No. 1312, dated the 30th November, 1938, from the Tariff Board . . .	296
(12) Letter No. 718, dated the 5th December, 1938 . . .	296
(13) Demi-official No. 1343, dated the 6th December, 1938, from the Tariff Board . . .	304
(14) Letter No. 1167-D. O., dated the 20th December, 1938 . . .	304
(15) Letter No. 1212, dated the 19th December, 1938 . . .	308
(16) Letter No. P. B. D-767/38, dated the 23rd December, 1938 . . .	313
7. Government of His Exalted Highness the Nizam of Hyderabad—	
(1) Letter No. 6433, dated the 19th July, 1938 . . .	314
(2) Letter No. 9188, dated the 23rd July, 1938 . . .	333
(3) Letter No. 6560, dated the 24th July, 1938 . . .	333
(4) Letter No. 6678, dated the 28th July, 1938 . . .	339
(5) Memorandum presented on the 22nd August, 1938 . . .	341
(6) Demi-official No. 164-P., dated the 23rd August, 1938 . . .	342
(7) Statement furnished by the Government on the 24th August, 1938 . . .	343
(8) Letter No. 7633, dated the 4th September, 1938 . . .	344
8. Government of His Highness the Maharaja of Nawanagar—	
(1) Letter No. 3497, dated the 14th June, 1938 . . .	345
(2) Letter No. 3597, dated the 22nd June, 1938 . . .	346
(3) Letter No. D-253-38, dated the 7th July, 1938 . . .	346
(4) Letter No. 272, dated the 19th July, 1938 . . .	346
9. Government of His Highness the Maharaja of Indore—	
Letter No. 2680-Com., dated the 29th July, 1938 . . .	346
10. Government of His Highness the Maharaja of Patiala—	
(1) Letter No. 225-G./38, dated the 12th July, 1938 . . .	349
(2) Letter No. F. 225-G./38, dated the 20th December, 1938 . . .	349
11. Government of His Highness the Maharaja of Travancore—	
(1) Letter No. D. Dis. No. 1645, dated the 21st July, 1938 . . .	351
(2) Letter No. 1668, dated the 22nd July, 1938 . . .	354
12. Government of His Highness the Maharaja of Cochin—	
(1) Letter No. F. 3-16745-1113, dated the 28th July, 1938 . . .	354
(2) Letter No. L. Dis. 2025-17 dated the 29th July, 1938 . . .	355

	PAGE.
13. Government of His Highness the Maharaja of Gwalior—	
Letter No. 1967—17A./53—38, dated the 24th August, 1938	255
14. Government of His Highness the Nawab of Bhopal—	
Letter No. 4260-D., dated the 6th August, 1938	356
15. Government of Bengal—	
(1) Letter from the Tariff Board No. 607, dated the 16th June, 1938	357
(2) Demi-official No. 6924-T., dated the 27th June, 1938, from the Inspector of Technical and Industrial Institutions, Bengal, Calcutta	357
(3) Letter No. 4657, dated the 12th July, 1938	357
(4) Letter No. 4736, dated the 16th July, 1938	375
(5) Letter No. 1741, dated the 1st September, 1938	380
(6) Letter No. 301-T., dated the 18th October, 1938	463
(7) Letter No. 314-T., dated the 6th November, 1938	408
(8) Letter No. 318-T., dated the 7th November, 1938	409
(9) Letter No. 23682-G., dated the 15th November, 1938	463
(10) Letter dated the 25th November, 1938	474
(11) Statement of Proprietor of Pure Silk Bhandar and Bengal Silk Stores, Vishnupur	477
(12) Representation received from the Proprietor of Pure Silk Bhandar and Bengal Silk Stores, Vishnupur	478
(13) Letter No. 384-T., dated the 28th November, 1938	479
(14) Letter dated the 9th December, 1938	480
(15) Supplementary statements received from the Deputy Director of Sericulture, Bengal, Berhanipore	482
(16) Notes submitted by the Deputy Director of Sericulture, Bengal	484
(17) Statements from several rearers, reelers and weavers	494
(18) Tests carried out in the Bengal Government Silk Conditioning House at Howrah	497
16. Government of Madras—	
(1) Letter No. 2720-II/38—8, dated the 22nd July, 1938	510
(2) Letter No. 2720-II/38—9, dated the 29th July, 1938	517
(3) Statements and supplementary replies handed in on the 19th August, 1938	566
(4) Economics of Eri Silk-worm handed in on the 19th August, 1938	573
(5) Letter No. 1498/38, dated the 23rd August, 1938	574
(6) Letter No. 2011-D./38, dated the 21st September, 1938	574
(7) Letter No. 1024-D./38, dated the 8th October, 1938	578
(8) Letter No. 1074-D./38, dated the 20th October, 1938	578
(9) Letter No. 1024-D./38, dated the 2nd November, 1938	584
(10) Letter No. 2552-D./38, dated the 6th December, 1938	585
(11) Demi-official letter No. 1346, dated the 7th December, 1938, from the Tariff Board, to the Director of Industries, Madras	586
(12) Demi-official No. 1024-D./38, dated the 26th December, 1938, from the Director of Industries, Madras	586

	Page.
17. Government of the Punjab—	
(1) Letter dated the 15th/18th July, 1938	587
(2) Letter dated the 22nd July, 1938	620
(3) Letter dated the 8th August, 1938	640
(4) Demi-official No. I. S. 19—15913, dated the 6th October, 1938	641
(5) Letter dated the 27th October, 1938	646
(6) Demi-official No. 969, dated the 14th September, 1938, from the Tariff Board	650
(7) Demi-official No. I. T. 4-II/18098, dated the 4th November, 1938	650
(8) Letter No. 1208, dated the 2nd November, 1938, from the Tariff Board	651
(9) Letter No. 18198, dated the 5th November, 1938	651
(10) Letter No. I. I. 411—18445, dated the 13th November, 1938	652
(11) Letter No. I. I. 4—1—365-C., dated the 16th November, 1938	664
18. Government of Bombay—	
(1) Demi-official No. I. A. 66—7581, dated the 18th June, 1938	665
(2) Letter No. I. A. 66—7771, dated the 22nd June, 1938	666
(3) Letter from the Tariff Board No. 639, dated the 27th June, 1938	666
(4) Letter No. I. A. 66—8532, dated the 7th July, 1938	667
(5) Letter No. 9483-II-D., dated the 21st July, 1938	667
(6) Demi-official No. 1336, dated the 5th December, 1938, from the Tariff Board	686
(7) Demi-official No. Eng. 66—1297, dated the 19th December, 1938	686
19. Government of Assam—	
(1) Letter No. 3839, dated the 18th July, 1938	688
(2) Letter No. 3999-E., dated the 27th July, 1938	694
(3) Letter from the Tariff Board No. 855, dated the 12th August, 1938	699
(4) Letter No. 5735-F., dated the 26th September, 1938	700
(5) Letter No. Sc. 12—337-T., dated the 16th December, 1938	700
20. Government of Bihar—	
(1) Letter No. 1440-D., dated the 22nd July, 1938	702
(2) Letter from the Tariff Board No. 777, dated the 28th July, 1938	707
(3) Letter from the Tariff Board No. 1178, dated the 18th October, 1938	708
(4) Letter No. 2010-D., dated the 15th November, 1938	708
(5) Letter No. 21171, dated the 8th December, 1938	711
21. Government of the United Provinces—	
Letter No. 3764-XVIII-618, dated the 15th August, 1938	714
22. Government of the Central Provinces and Berar—	
(1) Letter No. 2403—2165-VII, dated the 25th July, 1938	724
(2) Letter No. 2710—2218-VII, dated the 20th August, 1938	724

	PAGE.
(3) Demi-official No. 1187, dated the 18th October, 1938, from the Tariff Board	729
(4) Demi-official No. 4730—3048-VII, dated the 19th November, 1938	730
(5) Demi-official letter from the Tariff Board No. 1287, dated the 25th November, 1938	730
(6) Demi-official No. 6000—3120-A.-VII, dated the 19th December, 1938	730
23. Government of Orissa—	
(1) Letter No. 5027-E., dated the 22nd/23rd July, 1938	733
(2) Letter No. 5475-E., dated the 10th August, 1938	733
(3) Letter No. 6743, dated the 15th October, 1938	735
(4) Letter from the Tariff Board No. 1274, dated the 19th November, 1938	737
(5) Letter No. 7850-D., dated the 14th December, 1938	737
(6) Letter No. 7896-D., dated the 19th December, 1938	738
24. Government of Sind—	
(1) Letter No. 575-C., dated the 13th July, 1938	738
(2) Letter No. 575-C., dated the 23rd July, 1938	739
(3) Letter No. 575-C., dated the 3rd August, 1938	741
(4) Letter No. 575-C., dated the 31st August, 1938	741
25. Government of Delhi—	
(1) Letter No. 8107, dated the 11th July, 1938	741
(2) Letter No. 8728-L. S. G., dated the 23rd July, 1938	741
26. Government of the North-West Frontier Province—	
Letter No. 20920—9—28, dated the 10th June, 1938	745
27. Government of Burma—	
(1) Letter from the Tariff Board No. 579, dated the 8th June, 1938	745
(2) Letter No. 191-K. K./38 (1559), dated the 23rd Septem- ber, 1938	746
(3) Letter No. 191-K. K./38 (1559), dated the 2nd November, 1938	752
28. The Mysore Silk Association, Bangalore—	
(1) Letter dated the 22nd June, 1938	753
(2) Replies to the General Questionnaire	784
(3) Letter from the Tariff Board No. 683, dated the 13th July, 1938	802
(4) Letter No. 59, dated the 18th/19th July, 1938	803
(5) Letter No. 81, dated the 17th August, 1938	804
29. The Mysore Chamber of Commerce, Bangalore—	
(1) Letter No. 145, dated the 6th June, 1938	804
(2) Letter from the Tariff Board, No. 626, dated the 24th June, 1938	807
(3) Letter No. 347, dated the 19th July, 1938	807
(4) Letter No. 409, dated the 9th August, 1938	807
30. Mysore Silk Filatures, Ltd., Bangalore—	
(1) Letter No. 28, dated the 21st July, 1938	812
(2) Letter No. 29, dated the 22nd July, 1938	822
(3) Letter dated the 1st September, 1938	823

	PAGE.
21. Mysore Spun Silk Mills, Ltd., Channapatna—	
(1) Letter No. 39-B. A., dated the 27th July, 1938	824
(2) Letter No. 3547, dated the 29th July, 1938	827
(3) A general note submitted by the Company	820
(4) A note on the Degumming Department	830
(5) Supplementary note handed in at the time of oral evidence	831
(6) Letter No. 4537, dated the 14th/15th September, 1938	833
32. Silk Throwing Factory, Mamballi—	
Letter No. 128, dated the 25th July, 1938, from the Superintendent of Sericulture, Mysore	835
33. Bangalore Silk Filatures, Bangalore—	
(1) Letter from the Tariff Board, No. 850, dated the 11th August, 1938	837
(2) Letter dated the 13th August, 1938	837
34. Importers and Traders in Mysore—	
(1) Letter No. Cl. 412-37 38, dated the 24th July, 1938, from the Director of Industries and Commerce in Mysore, Bangalore	837
(2) Letter dated the 18th August, 1938, from Khoday Eshwara, Esq., Bangalore	843
35. Sericulturists, Aided Graineurs, Merchants, Reelers and other interested parties in Mysore—	
(1) Letter from the Superintendent of Sericulture, Mysore, No. 127, dated the 25th July, 1938	844
(2) Letter from the Superintendent of Sericulture, Mysore, No. 152, dated the 28th July, 1938	848
(3) Letter from the Superintendent of Sericulture, Mysore, No. Camp 151, dated the 27th/28th July, 1938	874
(4) Replies to the Questionnaire by B. Suryanarayana Rao, Aided Graineur, Chikkaballapur	889
(5) Letter from Mr. G. R. Suryanarayana, B.A., of Shantigrana, dated the 12th August, 1938	895
(6) Replies to Handloom Industry questionnaire handed in by Mr. R. S. Mani	896
36. Vice-Consul for China, Bombay—	
(1) Demi-official letter from the Tariff Board No. 628, dated the 24th June, 1938	897
(2) Letter No. Y.S.C/27-D./180, dated the 16th July, 1938	898
(3) Demi-official letter No. 935, dated the 31st August, 1938, from the Tariff Board	906
(4) Demi-official letter No. 941, dated the 1st September, 1938, from the Tariff Board	906
(5) Letter No. Y.S.O./27-D./230, dated the 2nd September, 1938	908
(6) Note on the Currency Policy of the Chinese Government	906
37. Replies received from Messrs. Nagindas Foolchand Chinai & Co., Bombay—	
(1) Demi-official letter from the Tariff Board No. 690, dated the 14th July, 1938	908
(2) Letter dated the 15th July, 1938	908

	PAGE.
(3) Demi-official letter from the Tariff Board No. 703, dated the 18th July, 1938	909
(4) Letter dated the 21st July, 1938	910
(5) Letter dated the 2nd August, 1938	911
(6) Letter dated the 20th August, 1938, from Nagindas Foolchand Chinai, Esq., Bombay, to Messrs. Shri Rama Silk Throwing Factory, Bangalore	911
(7) Letter dated the 1st September, 1938	912
(8) Letter dated the 20th September, 1938, from Nagindas Foolchand Chinai, Esq., Bombay, to the Mysore Silk Association, Channapatna	913
(9) Letter dated the 27th September, 1938	914
(10) Demi-official letter from the Tariff Board No. 1183, dated the 19th October, 1938	915
(11) Extract from letter dated the 1st December, 1938	915
(12) Demi-official letter from the Tariff Board No. 1331, dated the 4th December, 1938	915
(13) Demi-official letter dated the 7th December, 1938	915
(14) Demi-official letter dated the 7th December, 1938	916
(15) Quotations of Silk Yarn on the 6th December, 1938	917
38. The Kollegal Silk Filatures, Ltd., Kollegal—	
(1) Letter dated the 25th July, 1938	917
(2) Letter dated the 26th July, 1938	924
39. Silk Merchants, Kollegal—	
Welcome address presented to the President and members of the Tariff Board on the 7th August, 1938	933
40. S. Bagchi, Esq., M.S.R.A. (Silk Technologist), Berhampore, Bengal—	
(1) Letter dated the 15th August, 1938	934
(2) Letter dated the 18th October, 1938	939
(3) Letter dated the 24th October, 1938	948
41. Miss O. Cleghorn and Miss M. L. Cleghorn, F.L.S., Calcutta—	
(1) Replies to General Questionnaire by Miss M. L. Cleghorn, F.L.S.	951
(2) Reply to question No. 59 by Miss O. Cleghorn	953
(3) Letter No. 803, dated the 25th October, 1938, from the Superintendent of Bogra Sericultural Nursery to Miss O. Cleghorn	954
42. Naraindas Behani, Esq., Malda, Bengal—	
(1) Letter dated the 22nd July, 1938	954
(2) Statement submitted on the 21st November, 1938	958
43. J. O. Chowdhury, Esq., Agartala, Tipperah State, Bengal—	
Letter dated the 29th November, 1938	959
44. Mr. Nagarmal, c/o Messrs. Biscaralal Chimanlal & Co., Calcutta—	
(1) Demi-official letter from the Tariff Board, dated the 15th November, 1938	961
(2) Letter dated the 4th December, 1938	962
45. M. N. De, Esq., Bhagalpur—	
Letter No. 2805, dated the 22nd June, 1938	963

	PAGE.
46. Padampat Singhania, Esq., Cawnpore—	
(1) Letter dated the 11th July, 1938	965
(2) Letter from the Tariff Board, No. 716, dated the 19th July, 1938	965
(3) Letter dated the 22nd July, 1938	965
47. Millowners' Associations, Bombay, Calcutta, Cawnpore and Ahmedabad—	
(1) Demi-official letter from the Tariff Board No. 2-B., dated the 29th June, 1938, to the Millowners' Association, Bombay	965
(2) Letter from the Tariff Board No. 3-B., dated the 29th June, 1938, to the Millowners' Association, Calcutta	966
(3) Letter from the Tariff Board No. 4-B., dated the 29th June, 1938, to the Millowners' Association, Cawnpore	966
(4) Letter from the Tariff Board No. 5-B., dated the 29th June, 1938, to the Millowners' Association, Ahmedabad	966
(5) Demi-official letter No. 2815--161, dated the 2nd July, 1938, from the Millowners' Association, Bombay	966
(6) Letter No. 2641, dated the 27th July, 1938, from the Millowners' Association, Ahmedabad	969
48. Indian Central Cotton Committee, Bombay—	
(1) Demi-official letter from the Tariff Board No. 545, dated the 24th May, 1938	969
(2) Demi-official letter No. 7093, dated the 1st June, 1938	969
49. Messrs. Hazarat & Co., Bombay—	
(1) Letter No. I—19141, dated the 13th June, 1938	970
(2) Letter No. I—19462, dated the 21st July, 1938	970
(3) Price quotations of several kinds of silks	971
50. Exports of Silk Waste—	
(1) Letter No. 1053, dated the 27th September, 1938, from the Tariff Board, to Messrs. Volkart Bros., and Messrs. Gorio, Ltd., Bombay	972
(2) Letter from the Tariff Board No. 1073, dated the 29th September, 1938, to Messrs. Wilson & Co., Madras	972
(3) Letter dated the 29th September, 1938, from Messrs. Gorio, Ltd., Bombay	972
(4) Letter dated the 4th October, 1938, from Messrs. Wilson & Co., Madras	975
(5) Letter dated the 15th October, 1938, from the Volkart Bros., Bombay	976
51. Mills manufacturing Silk and Artificial Silk Goods—	
(1) Circular letter from the Tariff Board No. 544-A., dated the 24th May, 1938	976
(2) Circular letter from the Tariff Board No. 641, dated the 27th June, 1938	976
(3) Letter dated the 7th July, 1938, from Messrs. Kamala Mills, Ltd., Bombay	976
(4) Letter from the Tariff Board No. 718, dated the 19th July, 1938, to Messrs. Kamala Mills, Ltd., Bombay	977
(5) Letter from the Kamala Mills, Ltd., dated the 25th July, 1938	977
(6) Letter dated the 15th July 1938, from the Mahendra Silk Mills, Ltd., Bombay	977

	PAGE.
(7) Letter from the Tariff Board No. 731, dated the 20th July, 1938, to the Mahendra Silk Mills, Ltd., Bombay	978
(8) Letter dated the 30th September, 1938, from the Mahendra Silk Mills, Ltd., Bombay	978
(9) Letter dated the 21st July, 1938, from the Sassoon and Alliance Silk Mill Co., Ltd., Bombay	981
(10) Letter dated the 23rd July, 1938, from the National Artificial Silk Mills, Ltd., Bombay	985
(11) Letter dated the 23rd July, 1938, from the New Era Textile Mills, Ltd., Bombay	986
(12) Replies dated the 22nd July, 1938, from the Panalal Silk Mills, Bombay	988
(13) Letter dated the 26th July, 1938, from the Bipin Silk Mills, Bombay	989
(14) Letter dated the 29th July, 1938, from the Habib Silk Mills, Ltd., Bombay	990
(15) Letter dated the 30th July, 1938, from the Garden Silk Weaving Factory, Surat	992
(16) Letter dated the 2nd August, 1938, from the Shree Laxmi Silk Mills, Bombay	993
(17) Letter dated the 2nd September, 1938, from the Bombay Silk Mills, Ltd., Bombay	995
(18) Letter dated the 29th October, 1938, from the Bombay Silk Mills, Ltd., Bombay	1001
(19) Letter No. 38—815, dated the 4th June, 1938, from the Bengal Silk Mills, Co., Ltd., Calcutta	1006
(20) Letter dated the 9th November, 1938, from the Pravati Textile Mills, Ltd., Calcutta	1006
(21) Replies received from Messrs. Thimmappa & Sons, Dharmavaram, Madras	1007
(22) Letter dated the 9th August, 1938, from the Director of Industries, Bombay, forwarding replies received from the Bengal Simla Silk and Tussore Manufacturing Co., Surat	1007
(23) Letter dated the 22nd July, 1938, from the Director of Industries and Commerce in Mysore, forwarding replies from several concerns engaged in the manufacture of silk goods, etc.	1009
(24) Replies to the questionnaire by Mr. M. S. Basavanna Devaru, Mamballi, Mysore	1025
52. Chambers of Commerce and Associations—	
(1) Circular letter No. 544-A., dated the 24th May, 1938, from the Tariff Board	1029
(2) Circular letter from the Tariff Board No. 595, dated the 15th June, 1938	1029
(3) Letter dated the 20th July, 1938, from the Silk Merchants' Association, Bombay	1029
(4) Letter dated the 27th August, 1938, from the Silk and Artificial Silk Mills Association, Bombay	1030
(5) Letter dated the 31st August, 1938, from the Silk and Artificial Silk Mills Association, Bombay	1032
(6) Letter dated the 20th/21st September, 1938, from the Silk and Artificial Silk Mills Association, Bombay	1033

	PAGE.
(7) Letter dated the 21st July, 1938, from the Bombay Yarn and Silk Merchants' Association, Bombay	1036
(8) Letter dated the 19th September, 1938, from the Bombay Rayon Association, Bombay	1039
(9) Letter No. 2089, dated the 19th July, 1938, from the Indian Merchants' Chamber, Bombay	1040
(10) Letter No. A-227, dated the 1st August, 1938, from the Marwadi Chamber of Commerce, Bombay	1042
(11) Letter dated the 8th July, 1938, from the Japanese Chamber of Commerce, Bombay	1043
(12) Letter from the Tariff Board No. 682, dated the 13th July, 1938, to the Japanese Chamber of Commerce, Bombay	1044
(13) Letter No. 205, dated the 14th July, 1938, from the Japanese Chamber of Commerce, Bombay	1045
(14) Letter No. 225, dated the 1st September, 1938, from the Japanese Chamber of Commerce, Bombay	1045
(15) Letter No. 299, dated the 13th September, 1938, from the Japanese Chamber of Commerce, Bombay	1049
(16) Letter dated the 24th May, 1938, from Messrs. Karanjia Bros., Ltd., Bombay	1049
(17) Letter dated the 21st July, 1938, from Messrs. Karanjia Bros., Ltd., Bombay	1050
(18) Letter dated the 17th September, 1938, from Messrs. Kantilal & Co., Bombay	1052
(19) Letter dated the 1st October, 1938, from Messrs. Kantilal & Co., Bombay	1053
(20) Letter dated the 12th October, 1938, from Messrs. Kantilal & Co., Bombay	1054
(21) Letter No. G. 1084, dated the 28th July, 1938, from the Southern India Chamber of Commerce, Madras	1055
(22) Letter No. 819, dated the 31st July, 1938, from the Andhra Chamber of Commerce, Ltd., Madras	1058
(23) Letter No. 12-166, dated the 1st August, 1938, from the Indian Chamber of Commerce, Tuticorin	1059
(24) Letter No. IND-9, dated the 25th August, 1938, from the Bengal National Chamber of Commerce, Calcutta	1060
(25) Letter No. Ind. 9, dated the 26th October, 1938, from the Bengal National Chamber of Commerce, Calcutta	1072
(26) Letter No. 2558, dated the 16th July, 1938, from the Bengal Chamber of Commerce, Calcutta	1077
(27) Letter No. 01484, dated the 23rd July, 1938, from the Indian Chamber of Commerce, Calcutta	1077
(28) Letter dated the 3rd August, 1938, from the Japanese Chamber of Commerce, Calcutta	1078
(29) Statement submitted by the Japanese Chamber of Commerce, Calcutta	1081
(30) Letter dated the 16th November, 1938, from the All-India Spinners' Association, Calcutta	1081
(31) Letter No. 511, dated the 5th July, 1938, from the Bihar Chamber of Commerce, Patna	1084
(32) Letter dated the 29th June 1938, from the Benares Industrial and Trade Association, Benares	1088

	PAGE.
(33) Letter dated the 1st August, 1938, from the Mahakoshal Chamber of Commerce, Jubbulpore	10. 0
(34) Letter No. A.C. 3—47, dated the 27th July, 1938, from the Buyers' and Shippers' Chamber, Karachi	1091
(35) Letter No. 478—416—30, dated the 22nd July, 1938, from the Punjab Chamber of Commerce, New Delhi	1093
(36) Letter dated the 20th July, 1938, from the Punjab Trades Association, Lahore	1093
(37) Letter dated the 20th July, 1938, from the Punjab Trades Association, Lahore	1093
3. Representations regarding the Handloom Industry—	
(1) Letter No. A./159/38, dated the 16th June, 1938, from the Surat Weaving Association, Surat	1094
(2) Letter dated the 10th July, 1938, from the Surat Weaving Association, Surat	1094
(3) Representation handed in by the Poona Weavers in July, 1938	1097
(4) Letter dated the 2nd July, 1938, from Mr. Shah Chhagandas Dullabhdas Patani, Wholesale Cloth Merchant and Commission Agent, Yeola, to the Director of Industries, Bombay	1101
(5) Letter dated the 5th July, 1938, from the N. D. Industrial Co-operative Association, Ltd., Ahmedabad	1102
54. Indian Trade Commissioner in Japan, Osaka—	
(1) Letter No. A./159/38, dated the 16th June, 1938, from Tariff Board	1104
(2) Letter No. 712, dated the 19th July, 1938, from the Tariff Board	1104
(3) Endorsement No. 341-T. (13)/38, dated the 13th August, 1938, from the Government of India, Department of Commerce, Simla	1105
(4) Letter No. F. 43 (7)/38, dated the 11th November, 1938	1156
(5) Endorsement No. 341-T. (13)/38, dated the 12th December, 1938, from the Government of India, Department of Commerce, New Delhi	1156
(6) Letter No. F. 43 (7)/38, dated the 21st February, 1939	1168
55. Indian Government Trade Commissioner in the U. S. A., New York—	
(1) Letter No. 508, dated the 13th May, 1938, from the Tariff Board	1170
(2) Letter No. 363, dated the 17th August, 1938	1171
(3) Letter No. 1238, dated the 10th November, 1938, from the Tariff Board	1174
(4) Letter No. 363, dated the 29th November, 1938	1175
56. Collectors of Customs, Calcutta, Bombay, Madras and Karachi—	
(1) Circular letter No. 500, dated the 13th May, 1938, from the Tariff Board	1175
(2) Letter No. 201, dated the 26th May, 1938, from the Collector of Customs, Calcutta	1176
(3) Letter No. C. 707/38, dated the 26th May, 1938, from the Collector of Customs, Bombay	1176
(4) Letter No. R. O. R. 843/38, dated the 3rd June, 1938, from the Collector of Customs, Madras	1177
(5) Letter C. No. 1012/38, dated the 6th June, 1938, from the Collector of Customs, Karachi	1180

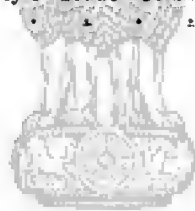
	PAGE.
(6) Letter No. 6-B., dated the 30th June, 1938, from the Tariff Board	1180
(7) Letter No. 342, dated the 19th July, 1938, from the Collector of Customs, Calcutta	1180
(8) Letter No. 918/38, dated the 20th July, 1938, from the Collector of Customs, Bombay	1180
(9) Letter No. R. O. R. 1129/38, dated the 19th July, 1938, from the Collector of Customs, Madras	1181
(10) Letter C. No. 1433/38, dated the 20th July, 1938, from the Collector of Customs, Karachi	1182
(11) Demi-official No. 636, dated the 25th June, 1938, from the Tariff Board, to the Collector of Customs, Bombay	1183
(12) Demi-official No. 887/38, dated the 7th July, 1938, from the Collector of Customs, Bombay	1184
(13) Letter No. 696, dated the 15th July, 1938, from the Tariff Board, to the Collector of Customs, Madras	1185
(14) Letter dated the 30th July, 1938, from the Collector of Customs, Madras	1185
(15) Letter No. 695, dated the 15th July, 1938, from the Tariff Board, to the Collector of Customs, Bombay	1185
(16) Letter No. 5-54/38-C., dated the 11th August, 1938, from the Collector of Customs, Bombay	1185
(17) Note forwarded by the Collector of Customs, Madras, dated the 27th August, 1938	1185
(18) Letter No. 818/38, dated the 13th September, 1938, from the Collector of Customs, Bombay	1187
57. Director General of Commercial Intelligence and Statistics, Calcutta—	
(1) Demi-official letter No. 503, dated the 13th May, 1938, from the Tariff Board	1190
(2) Letter No. 546, dated the 24th May, 1938, from the Tariff Board	1191
(3) Demi-official letter No. 8231-CIC, dated the 25th May, 1938	1191
(4) Letter No. 9043, dated the 7th June, 1938	1192
(5) Letter No. 630, dated the 24th June, 1938, from the Tariff Board	1195
(6) Letter No. 10409-Q., dated the 30th June, 1938	1195
(7) Letter No. 669, dated the 6th July, 1938, from the Tariff Board	1197
(8) Letter No. 11251-E., dated the 15th July, 1938	1197
(9) Letter No. 729, dated the 20th July, 1938, from the Tariff Board	1202
(10) Letter No. 771, dated the 28th July, 1938, from the Tariff Board	1202
(11) Letter No. 11956-Q., dated the 30th July, 1938	1202
(12) Letter No. 12671, dated the 11th August, 1938	1204
58. Forest Research Institute, Dehra Dun—	
(1) Demi-official letter No. 504, dated the 13th May, 1938, from the Tariff Board	1207
(2) Demi-official No. 2732/37-7-31, dated the 14th June, 1938	1207

	Page.
(3) Demi-official letter No. 627, dated the 24th June, 1938, from the Tariff Board	1208
(4) Demi-official No. 3554/37-15-36, dated the 27th July, 1938	1208
59. Commercial Counsellor, Shanghai, China—	
(1) Telegram No. 499, dated the 13th May, 1938, from the Tariff Board	1226
(2) Telegram dated the 17th May, 1938	1226
60. Railways—	
(1) Circular letter No. 507, dated the 13th May, 1938, from the Tariff Board, to certain important Railways	1227
(2) Letter No. R. 53-33-13, dated the 19th May, 1938, from the B., B. & C. I. Railway Co., Bombay	1227
(3) Letter No. T. 2406, dated the 25th May, 1938, from the M. & S. M. Railway Co., Ltd., Madras	1227
(4) Letter No. R. O. 1610, dated the 27th May, 1938, from the G. I. P. Railway, Bombay	1228
(5) Letter No. R. F. 46-111, dated the 24th May, 1938, from the Assam Bengal Railway Co., Ltd., Chittagong	1232
(6) Letter No. 560-C./110/CRD-II, dated the 31st May, 1938, from the E. B. Railway, Calcutta	1232
(7) Letter No. R. T. 1-162, dated the 30th May, 1938, from the S. I. Railway, Trichinopoly	1232
(8) Letter No. 43327, dated the 6th June, 1938, from the Agent, His Exalted Highness the Nizam's State Rail- way, Secunderabad (Deccan)	1233
(9) Letter No. 1201-R./213, dated the 2nd June, 1938, from the N. W. Railway, Lahore	1233
(10) Letter No. 4017-T. 3-1, dated the 7th/8th June, 1938, from the B. & N. W. Railway, Gorakhpur	1236
(11) Letter No. 13074, dated the 7th June, 1938, from the Mysore State Railway, Mysore	1236
(12) Letter No. C. 12234-21-360, dated the 13th June, 1938, from the Bengal Nagpur Railway, Calcutta	1236
(13) Letter No. C. R. 16-T. B. S., dated the 30th June, 1938, from the East Indian Railway, Calcutta	1237
61. Chief Commissioner of Railways, Simla—	
Demi-official No. 7407-T., dated the 19th September, 1938	1239
62. Conference of Directors of Industries of Provinces and Indian States interested in the Sericultural Industry—	
(1) Letter from the Tariff Board No. 1001, dated the 20th September, 1938, to certain Provincial Governments and Indian States	1244
(2) Letter from the Government of Mysore, No. D. 3165, dated the 6th October, 1938	1244
(3) Letter from the Government of Madras, No. 2673, dated the 26th October, 1938	1244
(4) Letter from the Government of Bombay No. 9483-D., dated the 25th October, 1938	1245
(5) Letter from the Government of Bombay, No. Eng. 66 416, dated the 28th October, 1938	1246
(6) Circular letter from the Tariff Board No. 1211, dated the 3rd November, 1938, to various Provincial Govern- ments and Indian States interested in the Sericul- tural Industry	1246

	PAGE.
(7) Names of representatives of various Provincial Governments and Indian States attending the Conference	1246
(8) Note of points for the Directors of Industries prepared and circulated by the Tariff Board	1247
(9) Memorandum submitted to the Tariff Board	1249
(10) Statement regarding fair selling prices of Charkha Silk	1254
63. Smuggling of Silk—	
(1) Demi-official letter from the Tariff Board No. 957, dated the 9th September, 1938, to the Hon'ble Mr. M. Slade, C.I.E., I.C.S., Secretary to the Government of India, Department of Commerce, Simla	1255
(2) Demi-official No. 46-T. (4)/38, dated the 21st September, 1938, from N. R. Pillai, Esq., C.B.E., I.C.S., Joint Secretary to the Government of India, Department of Commerce, Simla	1255
(3) Demi-official letter from the Tariff Board No. 1114, dated the 8th October, 1938, to the Hon'ble Mr. M. Slade, C.I.E., I.C.S., Secretary to the Government of India, Department of Commerce, New Delhi	1255
(4) Demi-official D. A. Dis. No. 1441-Ous. 1/38, dated the 25th October, 1938, from A. H. Lloyd, Esq., C.S.I., C.I.E., I.C.S., Member, Central Board of Revenue, New Delhi	1256
64. Information regarding number of persons supported by the Handloom Weaving Industry—	
(1) Circular letter from the Tariff Board No. 1345, dated the 6th December, 1938, to all Provincial Governments and certain Indian States	1256
(2) Letter No. 478-T., dated the 18th December, 1938, from the Deputy Director of Sericulture, Bengal, Berhampore	1256
(3) Letter No. D. 6084-Seri. 43-38-6, dated the 9th/10th January, 1939, from the Government of Mysore, Development Department, Bangalore	1257
(4) Letter No. 89-D., dated the 11th January, 1939, from the Government of Orissa, Development Department, Cuttack	1257
(5) Letter No. 33179-II/38-2, dated the 17th January, 1939, from the Government of Madras, Development Department, Madras	1258
(6) Letter No. 172-XVIII-618, dated the 18th January, 1939, from the Government of the United Provinces, Industries Department, Lucknow	1258
(7) Letter No. 423-I. & L. 39/3001, dated the 23rd January, 1939, from the Government of the Punjab, Electricity and Industries Department, Lahore	1259
(8) Letter No. 9483-11/G., dated the 8th March, 1939, from the Government of Bombay, General Department, Bombay	1259
(9) Letter No. 575-C., dated the 16th May, 1939, from the Government of Sind, Finance Department, Karachi	1260
65. Information regarding the number of filatures and filature basins—	
(1) Letter from the Tariff Board No. 1209, dated the 21st November, 1938, to the Director of Industries, Madras	1260

	Page.
(2) Letter No. 1024-D./38, dated the 9th November, 1938, from the Director of Industries, Madras . . .	1260
(3) Letter No. 1337, dated the 5th December, 1938, from the Tariff Board to the Director of Sericulture, Jammu . . .	1260
(4) Telegram No. 858, dated the 9th December, 1938, from the Director of Sericulture, Jammu . . .	1260
(5) Letter No. 1338, dated the 5th December, 1938, from the Tariff Board, to the Director of Sericulture, Srinagar . . .	1261
(6) Telegram No. 1245, dated the 12th December, 1938, from the Director of Sericulture, Srinagar . . .	1261
(7) Letter No. 1338/68, dated the 14th December, 1938, from the Director of Sericulture, Srinagar . . .	1261
(8) Telegram No. 1379, dated the 13th December, 1938, from the Tariff Board, to the Director of Sericulture, Srinagar . . .	1261
(9) Telegram dated the 14th December, 1938, from the Director of Sericulture, Srinagar . . .	1261
(10) Letter No. 1339, dated the 5th December, 1938, from the Tariff Board, to the Director of Industries and Commerce, Mysore Government, Bangalore . . .	1261
(11) Letter No. A1/38-39, dated the 12th December, 1938, from the Director of Industries and Commerce in Mysore, Bangalore . . .	1262
(12) Demi-official letter No. 1340, dated the 5th December, 1938, from Mohd. Nasrullah, Esq., B.A., Assistant Secretary, Tariff Board, to F. L. Silva, Esq., Kollegal, Coimbatore . . .	1262
(13) Letter dated the 10th December, 1938, from F. L. Silva, Esq., Kollegal, to Mohd. Nasrullah, Esq., B.A., Assistant Secretary, Tariff Board . . .	1262
66. List of Silk Mills in India—	
(1) Demi-official letter No. 1298, dated the 28th November, 1938, from the Tariff Board, to the Deputy Director of Statistics, Calcutta . . .	1262
(2) Demi-official letter No. 18437, dated the 1st December, 1938, from the Deputy Director of Statistics, Calcutta . . .	1262
(3) Letter No. 1342, dated the 4th December, 1938, from the Tariff Board, to certain Provincial Governments and Indian States . . .	1269
(4) Letter No. 25627-G., dated the 15th December, 1938, from the Government of Bengal . . .	1270
(5) Letter No. Eng. 66-1307, dated the 20th December, 1938, from the Government of Bombay . . .	1270
(6) Letter dated the 21st June, 1938, from the Chhoi Silk Milk Co., Ltd., Bombay . . .	1270
(7) Letter No. 2606-D./38, dated the 16th January, 1938, from the Government of Madras . . .	1272
(8) Letter No. I. A. 33-494-2147, dated the 8th February, 1938, from the Government of the Punjab . . .	1273
(9) Letter No. G. (8) 1-12987, dated the 16th December, 1938, from the Government of Sind . . .	1275
(10) Letter No. 22268-I-VIII-S-4, dated the 4th January, 1939, from the Government of the United Provinces . . .	1275

	PAGE.
(11) Letter No. 2416, dated the 16th January, 1939, from the Government of His Exalted Highness the Nizam of Hyderabad	1275
(12) Letter No. C. 1-412-37-38, dated the 25th December, 1938, from the Government of His Highness the Maharaja of Mysore	1276
67. Silk nets—	
(1) Endorsement No. 341-T. (23)/38, dated the 15th November, 1938, from the Government of India, Department of Commerce, New Delhi	1278
(2) Demi-official No. 1285, dated the 25th November, 1938, from the Tariff Board, to the Collector of Customs, Calcutta	1279
(3) Demi-official No. 792, dated the 6th December, 1938, from the Collector of Customs, Calcutta	1279
(4) Demi-official No. 1286, dated the 25th November, 1938, from the Tariff Board, to the Collector of Customs, Bombay	1279
(5) Demi-official C. No. 1569/38, dated the 5th December, 1938, from the Collector of Customs, Bombay	1279
(6) Letter No. 1226, dated the 3rd December, 1938, from the Tariff Board to His Majesty's Senior Trade Commissioner for India, Calcutta	1280
(7) Letter No. 1652/38, dated the 5th December, 1938, from His Majesty's Trade Commissioner in India, Calcutta	1280



सत्यमेव जयते

1. No. 28-T. (2)/38.

GOVERNMENT OF INDIA.

DEPARTMENT OF COMMERCE.

New Delhi, the 9th April, 1938.

RESOLUTION.

TARIFFS.

The protection afforded to the Sericultural Industry in India by the Indian Tariff (Textile Protection) Amendment Act, 1934, will determine on the 31st March, 1939. The Tariff Board is requested to examine the question of the protection enjoyed by the Industry and to report what protective measures if any, should be continued after that date.

2. The Tariff Board, in making its recommendations, will take into account all relevant considerations including the financial needs of the country and the dependence of the Government of India on import, export and excise duties for a large part of its revenue. It will have regard also to part (c) of the Resolution adopted by the Legislative Assembly on the 16th February, 1923, and will consider in particular how its recommendations will affect the handloom weaving industry.

3. Firms or persons interested who desire that their views should be considered by the Tariff Board should address their representations to the Secretary to the Board.

M. SLADE,

Joint Secretary to the Government of India.

2. Press Communiqué issued by the Tariff Board, on the 7th May, 1938.

The Government of India in their Resolution No. 28-T. (2)/38, dated the 9th April, 1988, have directed the Tariff Board to examine the question of the protection enjoyed by the Sericultural Industry under the Indian Tariff (Textile Protection) Amendment Act, 1934, which will determine on the 31st March, 1939, and to report what protective measures, if any, should be continued after that date.

2. Persons or firms who desire that their views should be considered by the Board, should address their representations (with six spare copies) to the Secretary, Tariff Board; Matheran (Bombay Presidency); so as to reach the Board's office not later than the 1st June, 1938, and up to 15th June at Board's office at Poona. On receipt of such representations the Board will issue, as early as possible, a questionnaire setting out the points on which detailed information is required. The dates for the public examination of witnesses will be notified in due course.



नन्दसिंह नयन

3. Questionnaires issued by the Tariff Board.

(1) QUESTIONNAIRE FOR HANDLOOM INDUSTRY.

Questionnaire for Local Governments.

1. (a) What is the total number of handloom weavers in your area? How many are at present engaged—

- (i) in weaving pure silk goods only,
- (ii) in weaving both cotton and silk mixed goods (i.e., in making cotton piecegoods with silk borders), and
- (iii) in weaving cotton goods only.

(b) Has there been any increase in the total since 1st April, 1934?

2. From what sources do silk weavers obtain their raw materials, e.g., raw silk, silk yarn, spun silk, artificial silk yarn and gold thread? Are these materials manufactured in India or imported? What is the price paid per lb.?

3. Is yarn made from staple fibre used by weavers in the manufacture of silk goods? If so, what proportion of this yarn is as a rule utilised? From what source is it obtained, and what is its price?

4. Is there any tendency for staple fibre yarn to oust silk? What is the market estimation of staple fibre goods?

5. Please state whether the following operations are generally performed by the weaver himself or by some other agency:—

- (i) twisting and winding;
- (ii) boiling off;
- (iii) dyeing;
- (iv) doubling and preparing the warp.

6. What kinds of silk are used for warp and for weft?

7. The last Tariff Board found that in most parts of the country the organisation of the industry was in the hands of merchants who finance it. What is the present position? Do the weavers get a fair deal under this system? Have you any suggestions to make?

8. At the time of the last Tariff Board it was stated that the following varieties of silk goods were generally produced:—

- (1) Gulbadam.
- (2) Daryai.
- (3) Phulkari.
- (4) Sarees.
- (5) Gota.
- (6) Dupattas.
- (7) Lungis.
- (8) Suitings and shirtings.
- (9) Handkerchiefs.
- (10) Gown pieces.
- (11) Brocades (khimkhab).

Are these classes of cloth still woven in your area or has there been any change? To what extent do they compete in the market with imported piecegoods and what are the qualities most subject to such competition?

9. What is the total handloom production of goods made from the materials mentioned in Question 2?

10. How many days are generally taken by a weaver to produce the finished article in each category?

11. What kind of silk is used and what quantity?

12. What is the length and breadth of the finished article and what is its approximate price?

13. What is the approximate value of the total annual production of silk goods?

14. For what purposes is spun silk used? Is its use restricted to particular kinds of cloth?

15. How do weavers obtain their silk supply? Do they purchase it directly from the reeler or through middlemen?

16. Do merchants supply silk to weavers on credit? If so, how much credit do they give and for what period?

17. Do silk merchants acting as importers' agents sell direct to weavers or through retailers or brokers?

18. How does the quality of Indian silk compare with that of imported silk? What is the opinion of silk merchants with regard to Indian silk?

19. Is silk yarn sorted or graded either by the reeler or by any other agency? If sorting or grading were introduced would the weavers take advantage of it and would it result in the increased consumption of Indian silk?

20. Is there a system whereby silk is supplied to weavers by a middleman to whom the finished article is returned for marketing? If so, what are the conditions generally imposed?

21. During the last Tariff Board enquiry it was stated that one reason why weavers prefer to use imported silk is the lack of enterprise and method in the marketing of Indian raw silk in the principal silk producing centres. It was further stated that no serious effort was made to advertise the merits and varieties of Indian silks and the variation in the unit of weight between one silk producing centre and another and between the silk producing and the weaving centres proved a most serious handicap to Indian silk. Please state the present position. Have any efforts been made to remedy these defects?

22. It was stated during the last enquiry that Indian silk was more difficult to wind than foreign silk and that the loss in degumming was greater in the case of Indian silk than in the case of Chinese silk. Has there been any improvement in the method of re-reeling?

23. It was found that imported artificial silk yarn was replacing raw silk to a marked degree on account of its extreme cheapness. Please state the present position.

24. The Tariff Board in 1933 found that spun silk was a serious competitor to Indian raw silk because of the advantage to the weaver that it did not need re-reeling or twisting and thus he was able to save expense on both these operations, and at the same time there was no loss in degumming. Please state if the present rate of duty is sufficient to protect the Indian product.

25. Please give a statement showing annually the variations in cost price, sale price and weavers wages for typical articles of cloth in important weaving centres in your area since 1st April, 1934.

26. The last Tariff Board was of opinion that any development of sericulture in India must depend upon the existence of a large and growing market, which was provided almost entirely by the handloom industry and for that reason it was suggested by the majority of local Governments that any increase in the duty on imported silk should be accompanied by an increase in the duty on imported silk manufactures. Please state whether the present duties on imported silk fabrics, artificial silk goods and mixtures have proved beneficial to handloom weavers.

27. Have any factories for the production of silk goods come into existence as the result of protection to the Sericultural industry or for any other reason? If so, what is their financial position? Do they use Indian or imported raw material? Please state the reasons for their preference.

28. What is the approximate cost of manufacture of typical articles of silk cloth under the following heads:—

- (1) Raw material.
- (2) Twisting and winding charges.
- (3) Dyeing charges.
- (4) Weaving charges.
- (5) Cost of labour.
- (6) Other charges.

How are the weavers paid—per day or per piece? At what rates are they paid?

29. In what way is assistance rendered by Co-operative Societies? Do they advance money on the finished product or do they assist the weavers to obtain their supplies of raw materials and other requisites?

30. Where is the manufactured article sold? If not at the place of manufacture, what are the principal markets to which finished goods are sent? What charges including freight, over and above the cost of manufacture has the weaver to incur in transporting his goods?

31. Is the demand for natural silk increasing or decreasing?

32. What are the present sources of supply of raw silk? What is the approximate amount of raw silk consumed in the various markets in the area under your jurisdiction?

33. Has there been any appreciable turnover from imported to indigenous silk as a result of protection?

34. Are there any other matters in which the silk handloom industry has been affected by the grant of protection to sericulture that you desire to bring to notice?

(2) General Questionnaire.

[N.B.—1. Please answer only questions dealing with matters with which you are directly acquainted.

2. Please send your reply (with five space copies) in time to reach the Secretary, Tariff Board, Poona, not later than the 23rd July, 1938.]

1. What has been the progress of the Sericultural Industry with which you are concerned since protection was granted in 1934? Over what area is it at present carried on? How many people are (a) entirely, (b) partly dependent upon (i) silkworm rearing and (ii) reeling for their livelihood?

2. How is the industry organised with reference to management, finance and marketing?

3. What is the maximum production of (i) cocoons, (ii) raw silk attainable under the present organisation? Give the quantity and value of cocoons and raw silk produced in each of the last five years, and explain any material variation between these figures and your estimate of the maximum production attainable.

4. What is the silk content of typical varieties of cocoons? How does this yield compare with that of Chinese, Japanese and other cocoons?

5. What kinds of silkworms are at present reared?

6. What is the present cost of constructing and equipping a rearing house? How often do the various parts of it need renewal? Have you made any improvements since 1933? Have you been able to reduce its cost?

7. Please show in the following form the results given by each variety of worms reared during the last five years:—

Race or variety.	Number of days.	Number of cocoons to a pound.	Length of filament.	Denier.
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8. Have you adopted any different method of rearing worms since protection was granted? If so, please explain the exact difference and the advantages of the new method.

9. Are the worms reared from local or from imported seed? Is the production of seed organised separately from the production of cocoons? If it is, give full particulars of the organisation, with full details of the work done and its cost per ounce of seed. If there is no separate organisation, is any control exercised over the selection of cocoons for the production of seed?

10. Has your Government or State taken any steps to provide disease free seed by legislation or by any other means? Have these measures proved successful?

11. Are your worms univoltine, bivoltine or multivoltine? If multivoltine, how many broods are ordinarily raised in a year? What is the average number of worms produced from an ounce of seed? How many ounces of seed are on the average hatched in a year?

12. Have any foreign races of worms become by now completely acclimatized? If so, please give details.

13. What methods have been adopted for the selection of the cocoons and moths used for the production of seeds? What precautions have been taken to combat the pebrine disease?

14. What is the present wastage in silkworm rearing from disease and other causes? What improvements have been made during the last 5 years?

15. On what leaves are the worms fed? If on mulberry leaves, state whether the mulberry is cultivated by the man who breeds the worms either on his own land or on leased land, or by a man from whom the breeder buys the leaves. In either case, give the cost of cultivation both initial and recurring (i.e., the cost of preparing an acre of land, the kind and quantity of manure used, the number of trees or bushes to the acre, the yield of leaf per acre or bush and the average life of the tree or bush), the quantity of leaves required to feed the worms produced from an ounce of seed and the cost of these leaves to the breeder. If the worms are fed on leaves other than mulberry, state what the leaves are, how they are supplied and at what price.

16. (a) Have any experiments been made to improve the yield and reduce the cost of mulberry cultivation?

(b) How many leaf crops does the indigenous mulberry produce annually? Is tree or bush cultivation preferable? Please give a statement showing the cost of cultivation including manure per acre and the yield of leaves in maunds of the bush and tree mulberry.

17. Please give a statement showing for the last five years (i) the prices paid to the cultivator of mulberry leaves by the breeder of worms, (ii) the profits of such cultivation compared with that of other alternative crops.

18. The previous Tariff Board found that the fall in the wholesale price of cocoons and raw silk was greater than that of other food crops except rice. What is the present position?

19. What methods have been adopted in your area for improving the quantity and quality of food supplies for silkworms and what reductions you have been able to effect in its price?

20. The last Tariff Board found that the main defects of the indigenous industry were out of date methods of cultivating the mulberry, rearing silk-worms and insufficient marketing organisation. What is the present position in respect of these matters?

21. It was stated that the yield of cocoons obtained in India even from univoltine worms was much lower than in European countries. What is the present average yield of cocoons per ounce of seed and per acre of mulberry trees? Please give figures for univoltine, bivoltine and multivoltine cocoons. Has there been any improvement since the last Tariff Board reported?

22. It was stated that the cocoons of the univoltine races contain more silk than those of the multivoltines. Have any experiments been made to produce hybrids? What has been the result of those experiments?

23. Give for each of the last five years (a) the total works expenditure incurred on the production of cocoons and (b) the works cost of producing cocoons from one ounce of seed under the following heads:—

- (1) Cost of seed.
- (2) Cost of labour.
- (3) Cost of food for worms.
- (4) Cost of appliances.
- (5) Other expenses.
- (6) Total.

N.B.—If figures are not available for the whole of the area with which you are concerned, it will suffice if they are given for any part of it for which they can be compiled with accuracy. In this case, the total quantity produced in the area for which costs are given should be stated.

24. What is the price per pound of cocoons? Please give annual maxima and minima since 1933-34.

25. Does the breeder of worms keep his cocoons to reel at home or does he sell them as cocoons? If he sells them, does he sell at once irrespective of the state of the market or can he keep them till prices suit him? Give the average prices obtained in each of the last five years. If he reels the silk himself, state the average yield of (a) silk and (b) chasam or waste obtained from 100 lbs. of cocoons in each of the last five years and the average value of each.

26. How much of the total production of raw silk is reeled by hand on single or multiple charkhas and how much by power driven machinery?

27. Give for each of the last five years the total quantity of (a) raw silk reeled, and (b) waste produced with the average price obtained for each. How many cocoons are required to produce a pound of raw silk? Please state whether your answer relates to silk reeled in a filature or to silk reeled by hand, and in the latter case the method of hand reeling should be specified.

28. What is the initial cost of the equipment commonly used for hand reeling? What outturn should it give? How long does it last?

29. Give for each of the last five years (a) the total works expenditure upon reeling and (b) the works costs of reeling one pound of raw silk—

- (1) by a charkha;
- (2) by a Mysore Domestic Basin or other basin;
- (3) in a filature, under the following heads:—
 - (i) cost of cocoons,
 - (ii) cost of labour,
 - (iii) cost of power, light and fuel,
 - (iv) cost of water and soap,
 - (v) cost of supervision and management,

- (vi) cost of repairs and maintenance,
- (vii) selling expenses,
- (viii) other expenses,
- (ix) total.

30. Do you consider that Indian filatures are at any disadvantage as compared with their competitors in respect of any of these items of cost?

31. The last Tariff Board was of opinion that a filature of 200 Basins would be an economical unit suitable to Indian conditions. Do you agree with this view? If not, what unit do you consider suitable?

32. Please state the maximum capacity of the filature for which costs are given; give the actual output of (a) raw silk and (b) waste for each of the last five years.

33. What is the total number of people engaged in each branch of the Sericultural Industry? Please give figures for 1933-34 and for the present year.

34. What is the total strength of the labour employed in your filature? What proportion of the labour is skilled? Is an adequate supply of labour available? How long does it take untrained labour to acquire the minimum skill necessary?

35. (1) Please give the rates of wages paid to reelers working—

- (a) with charkhas,
- (b) with Mysore Domestic Basins or other basins,
- (c) in a filature.

(2) To what extent do you consider the Sericultural Industry in India is hampered in comparison with its competitors by the inefficiency of Indian labour?

(3) What are the present facilities provided for technical education—

- (i) for reelers,
- (ii) for rearers, and
- (iii) any other skilled labour?

36. What is the block value of your filature as it stood in your books at the end of the last complete financial year under the following heads:—

- (a) leases and concessions,
- (b) lands,
- (c) buildings,
- (d) plant and machinery,
- (e) other assets?

37. What do you estimate should be the present day cost under the heads:—

- (i) buildings,
- (ii) plant and machinery,
- (iii) other costs

for erecting a filature having the same capacity as your filature?

38. Please state for each year since 1933-34 the rate at which (a) buildings, (b) plant and machinery have been depreciated and the total amount written off. Please also state the amount of reserve fund created, if any, either from surplus profits or from other sources.

39. What amount of working capital do you consider necessary for a filature of the capacity stated? How is the working capital obtained and at what rate of interest?

40. Is "throwing" carried on as a separate business? If so, please supply all the information regarding it which has been asked for in questions Nos. 29 to 39 relating to filatures.

41. Please state the cost of Indian raw silk twisted both in mills and by hand and in filatures and charkhas under the following heads:—

- (1) price of raw silk,
- (2) twisting and winding,
- (3) boiling off.

42. What improvements have been effected since the last Tariff Board reported with regard to the defects and blemishes found in the silk reeled on country charkhas? Is re-reeling practised in India as in foreign countries?

43. What is the cost of re-reeling and what is the average loss of weight per seer?

44. What percentage of Indian silk is at present re-reeled?

45. What are the various industrial uses of raw silk in India?

46. What do you estimate to be at present—

- (i) the total demand in India for your products,
- (ii) the total production in your area of raw silk?

47. Of the total quantity of raw silk and waste produced in each of the last five years, please state the quantity used locally, the quantity sold for use in other parts of India and the quantity sold for export. Please give full particulars of the marketing methods adopted.

48. Has there been any improvement with regard to exports of raw silk? Do you think that the establishment of a conditioning house would help to stimulate the trade?

49. Compare the railway freight paid by importers from the ports to the principal up-country markets and the railway freight paid by you.

(N.B.—What is desired is detailed information regarding actual consignments with the name of the port, the names of the up-country stations, the distances, rates per maund per mile, etc.)

50. Please prepare a statement showing the prices at which your products have been sold during the past five years in distant markets as compared with your home market. Do the former generally correspond with the latter if allowance is made for freight to destination? If not, please explain the reasons for the difference.

51. The last Tariff Board found that Indian silk was at a serious disadvantage at the time of marketing owing to the absence of facilities for sorting or grading? Have any such facilities now been provided?

52. Is there any marked difference between the wholesale prices published by the Chambers of Commerce and the prices actually realised by the reelers? Please support your answer by figures and give reasons for any difference.

53. Please state the quantity of each kind of foreign silk imported by you during each year since 1933-34. From what countries have you imported it and at which prices? Please give—

- (1) F.o.b. price per lb.
- (2) Port of importation.
- (3) Freight, insurance, etc.
- (4) Landing charges, etc.

State the class or classes of raw silk for which prices are given.

54. What kinds of imported silk as classified in the Indian Customs Tariff compete with the different kinds of Indian silk and what kinds of imported silk are generally required by handloom weavers? Please give a comparison as far as possible on the lines given in Table LXVI on page 128 of the Tariff Board Report of 1933.

55. To what extent does Indian silk compete with artificial silk and staple fibre?

56. Do you consider that any raw silk imported from Japan, China or other countries is placed on the Indian market at prices which do not cover the cost of production or at prices which are lower in India than those at which they are placed on other markets (excluding freight and duty)? If so, please furnish samples of such silk, if possible, with particulars of such prices. Please state fully your reasons and the evidence on which you rely.

57. Is imported raw silk superior to Indian silk in colour, in winding quality or in any other respect? How far is the difference in price between Indian and imported silk due to these considerations?

58. To what extent do you consider that the competition of imported silk with Indian silk has been accentuated by fluctuations in exchange?

59. The last Tariff Board found that no silk was imported into India which competed with Indian silk produced from Tasar, Muga and Eri worms. Please state what is the present position.

60. What use is made of imported silk waste?

61. What is the percentage of silk waste at present obtained from reeling?

62. It was stated by the last Tariff Board that the prosperity of the raw silk industry depends upon the price of silk waste. What are the prices at present obtained for your silk waste?

63. It was stated by the last Tariff Board that the high percentage of silk waste in all parts of India excepting Kashmir was due to the fact that the cocoons are multivoltino and possess a higher percentage of loss, and it was further stated that the percentage of waste can be reduced by the utilisation of cross-breeds. Has anything been done to effect an improvement in this respect?

64. Have any spinning plants been installed since the last Tariff Board reported for the manufacture of spun silk in your area? If so, please supply all relevant information regarding it which you have been asked to supply in questions 29 to 39 relating to filatures.

65. How much of the machinery required for a filature can be manufactured in India? How does the cost of such machinery compare with the cost of imported machinery?

66. The last Tariff Board found that exports of raw silk waste had ceased. What is the position now? Have you any suggestions to make by which this trade can be revived or developed?

67. Do you export any silk fabrics to other countries. If so, to what countries? Where did this export trade commence? Is the export market increasing or decreasing? If there is any appreciable export trade please give a detailed description of it.

68. Do you consider that the present classification and tariff valuation of imported raw silk for Customs purposes are suitable? Does it operate to the disadvantage of the indigenous producer in the manner suggested in paragraphs 145 and 146 of the Tariff Board Report of 1933.

69. (a) What is the amount of protection which you consider necessary for the Sericultural Industry?

(b) In what form do you propose it should be given?

(c) For what period do you think it will be required? Please give full reasons for your answers.

70. What is likely to be the effect of your proposals upon (a) the silk textile industry in India, (b) the handloom industry? Are any other industries likely to be affected?

71. What proportion of the cost of (1) twisted silk and (2) silk piecegoods is represented by the cost of raw silk?

72. Please state to what extent the protection granted in 1934 has been beneficial to the industry.

73. The Tariff Board found that the Sericultural Industry differed from other industries in this sense that in its modern form it cannot stand without Government organisation and assistance. Please state what steps have been taken by Government to improve the industry with particular reference to paragraphs 200 to 206 of the Board's Report of 1933.

74. Do you consider that if the Sericultural Industry is further protected for certain period, it will be possible within that period to reduce the cost of producing raw silk in India. If so, please state (1) the amount of reduction which can be secured, (2) the particular items of cost in which reduction can be made and (3) the means by which such reductions can be brought about?

(3) *Questionnaire for Importers and Traders.*

1. Which are the foreign countries which compete most with Indian silk? In which of the Indian markets and in respect of what classes of silk is competition keenest?

2. Please state for each of the past five years the prices at the port of entry of the principal classes of imported silk which compete with Indian silk. Please state also the current price of each class of silk. The c.i.f. price, landing and other charges and duty should be stated separately in each case.

3. Please state the corresponding prices of the principal classes of Indian silk against which imported silk competes.

4. Is there any difference between the price realised for any class of Indian silk and the price of the corresponding class of imported silk? If so, please explain the reasons for the difference.

5. Compare the railway freight paid by you from port to various selected consuming centres in India and the railway freights by Indian producing centres to the same markets.

N.B.—What is desired is concrete instances giving the name of the port, the names of the selected consuming centres, the distances, rate per maund per mile, etc.

6. Have you any reason to suppose that the prices at which foreign producers sell for export to India are unremunerative, i.e., below cost of production or at rates less than those in other countries for silk of the same quality? If so, please state fully your reasons and the evidence on which you rely.

7. Do you consider that Indian silk is equal in quality and appearance to imported silk? Does it command the same price? If not, to what causes do you attribute the difference in the prices? Are the defects, if any, in Indian silk such as can be remedied in a reasonable time by an improvement in technical skill or sericulture?

8. Do the conditions of manufacture of raw silk in India differ materially from those in competing countries? If so, what are the important differences?

9. Do you consider that as compared with the foreign manufacturer, the Indian manufacturer is at a disadvantage in respect of plant and machinery, labour, materials, climatic conditions, freights, Customs duties or other factors?

10. What do you estimate to be the probable trend of the price of raw silk during the next few years?

11. Do you consider that the present classification and tariff valuation of imported raw silk for Customs purposes are suitable? Does it operate to the disadvantage of the indigenous producer in the manner suggested in paragraphs 145 and 146 of the Tariff Board Report of 1933?

12. It is said that at present there is a definite preference for filature silk because hand-reeled silk costs more due to wastage and labour. It is further stated that hand-reeled silk is also being replaced by artificial

silk yarn and staple fibre. Please state whether you are in agreement with these views, and, if so, whether the substitution that is taking place is due to the price factor or other causes.

13. The declared value of imported silk rose to a remarkable extent in January, 1937, and fell to the same level again in April, 1938. Was this rise of a temporary or permanent nature? Was it due to a change in the quality of imports or to a real variation in the price?

14. Do you consider that the competition of imported silk, whether direct or indirect, with Indian silk is in any way assisted by special facilities either in the matter of credit obtained by the exporting houses in their own country or offered by them to buyers in India or otherwise?

15. How far do you consider that the competition of imported silk with Indian is facilitated by greater attention paid by exporters to the requirements and preferences of Indian middlemen and consumers in regard to matters of quality, finish and packing?

16. Has there been any marked change in recent years in the quality of silk imported into India from Japan and China or any other country?

17. Do silk merchants who are importers sell direct to weavers or through retailers or brokers?

18. From what sources do silk weavers obtain their raw materials, *e.g.*, raw silk, silk yarn, spun silk and artificial silk yarn? Are these materials manufactured in India or imported? What is the price paid per lb?

19. Is yarn made from staple fibre used by weavers in the manufacture of silk goods? If so, what proportion of this yarn is as a rule utilised? From what source is it obtained and what is its price?

20. Is there any tendency for staple fibre yarn to oust silk? What is the market estimation of staple fibre goods?

21. Please state whether the following operations are generally performed by the weaver himself or by some other agency:—

- (i) twisting and winding;
- (ii) boiling off;
- (iii) dyeing;
- (iv) doubling and preparing the warp.

22. What kinds of silk are used for the warp and for the weft?

23. For what purposes is spun silk used? Is its use restricted to particular kinds of cloth?

24. Is raw silk sorted or graded either by the reeler or by any other agency? If sorting or grading were introduced, would the weavers take advantage of it and would it result in the increased consumption of Indian silk?

25. During the last Tariff Board enquiry, it was stated that one reason why weavers prefer to use imported silk is the lack of enterprise and method in the marketing of Indian raw silk in the principal silk-producing centres. It was further stated that no serious effort was made to advertise the merits and varieties of Indian silks and the variation in the unit of weight between one silk-producing centre and another and between the silk-producing and the weaving centres proved a most serious handicap to Indian silk. Please state the present position. Have any efforts been made to remedy these defects?

26. It was stated during the last enquiry that Indian silk was more difficult to wind than foreign silk and that the loss in degumming was greater in the case of Indian silk than in the case of imported silk. Has there been any improvement in the method of re-reeling?

27. It was found that imported artificial silk yarn was replacing raw silk to a marked degree on account of its extreme cheapness. Please state the present position.

28. The Tariff Board in 1933 found that imported spun silk was a serious competitor of Indian raw silk because of the advantage to the weaver that it did not need re-reeling or twisting and thus he was able to save the expense of both these operations, and at the same time there was no loss in degumming. Please state if the present rate of duty is sufficient to protect the Indian product.

29. During the past few years Japan has obtained pre-eminent position as an exporter to India of raw silk and silk goods, both artificial and natural. What do you consider is the reason for this?

30. What qualities and what lines of imported silk goods compete directly or indirectly with silk goods manufactured in India?

31. Do you consider that there are any signs of a growing preference on the part of Indian consumers for cheaper qualities of silk goods than those ordinarily produced in India such as artificial silk goods and mixtures and that this preference is working to the disadvantage of the Indian product?

32. Can you give any specific instances in which any line of Indian silk goods has been ousted from or seriously handicapped in the home or foreign markets or any part of them by imports especially of artificial silk goods or mixtures from foreign countries?

33. Have any factories for the production of silk or spun silk goods come into existence as the result of protection to the Sericultural Industry or for any other reason? If so, what is their financial position? Do they use Indian or imported raw material? Please state the reasons for their preference.

34. The Board has noticed that in 1937-38 according to the Sea-borne Trade Returns artificial silk yarn has been imported in very large quantities and there has been a fall in the imports of silk fabrics in the same period. Is there any tendency to produce a larger quantity of silk goods in India from imported raw material?

35. Can you give any instances in which imported silk or silk goods are being sold at such a price that it can be inferred that they have not paid the full duty?

(4) Questionnaire for Silk and Artificial Silk Goods Manufacturers.

1. Please state—

- (a) whether your concern is a public or private registered Company or an unregistered firm;
- (b) if registered, whether it is registered in India or abroad and whether the capital is rupee or sterling capital;
- (c) the proportion of Indian shareholders in the Company and the shares held by Indians;
- (d) the extent to which Indians are represented on the Directorate and in the superior management of the Company.

2. What is the total capacity of your mill as at present equipped for the manufacture of artificial silk goods, pure silk goods and mixtures?

3. What has been the actual output of the mill for each year of artificial silk goods, pure silk and mixtures since 1933 or the year when your factory commenced working, whichever is later?

4. Enumerate the chief classes of goods manufactured in your mill. What is the average percentage of the total output which each represents?

5. (a) What has been your annual consumption since 1933 or the year of commencement of the following raw materials:—

Raw silk,
Artificial silk,
Spun silk,
Staple fibre?

Please state whether these articles are of indigenous or foreign origin and in the latter case give the country of origin.

(b) If imported silk is preferred to indigenous silk, please give the reasons.

6. (a) What is your estimate to-day of the quantity of raw silk required per yard of cloth if it is manufactured wholly out of that material?

(b) In the case of mixtures, what proportion of silk is present?

7. Please give for each of the last five years the cost per lb. delivered at the mill of the raw materials used in your mill under the following heads:—

- (a) F.o.b. price per ton.
- (b) Port of importation.
- (c) Freight, insurance, etc.
- (d) Landing charges.
- (e) Transport charges to mill.
- (f) Other charges.

8. What is the weight of the silk or artificial silk required per lb. of the finished article? In the case of mixtures, please give examples of the principal standard products.

9. How do the prices of your finished goods compare with those of imported articles?

10. Is your machinery suitable for the manufacture of silk goods from Indian raw silk as well as from imported silk?

11. Please give a brief account of the process of manufacture.

12. Please fill up Forms I and II annexed to the questionnaire regarding the total cost of production, works cost per yard of cloth. Please state if possible for each year since 1933 or since you commenced operation the price realised by you for the principal classes of goods manufactured.

N.B.—The net price realised ex-factory should be given.

13. Have you any reason to suppose that prices at which foreign producers sell goods for export to India are unremunerative, i.e., below the cost of production or such as to leave only a small margin of profit to the producer? If so, please state fully the reasons and the evidence on which you rely.

14. Please state the labour force employed by you since 1933 or since you commenced operation and the total annual wages bill. Do you provide any facilities for training Indian apprentices? If so, on what terms?

15. In which of the Indian markets is foreign competition keenest?

16. Are your products in a disadvantageous position compared with similar imported products as regards freight from the place of manufacture to the principal upcountry markets? If so, please give specific instances.

17. What is the block value of your property as it stood in your books at the end of the last complete year for which figures are available under the following heads:—

- (a) Leases and concessions.
- (b) Lands.
- (c) Buildings.
- (d) Plant and machinery.
- (e) Other assets.

18. What do you estimate would be the present day cost under the heads (i) buildings, and (ii) plant and machinery for erecting a mill having the same capacity as your mill?

19. Please state for each year since 1933 or since you commenced working—

- (a) the amount written off for depreciation, and
- (b) the amount of Reserve Fund created, if any, either from surplus profits or from other sources.

20. Please prepare a statement showing for each year since 1933 or the year you commenced working—

- (a) the amount of the paid up share capital ranking for dividend;
- (b) the actual amount distributed as dividends on each class of capital;
- (c) the percentage on the paid up share capital of each class which the dividend represented.

21. Please send copies of your balance sheet for each year since 1933.

22. Please state what has been the expenditure under the following heads:—

- (a) Interest on working capital;
- (b) Depreciation;
- (c) Head Office expenses and Agents' commission;
- (d) Dividends on share capital and interest on loans.

23. It is stated by the handloom weavers the production of saris and tuffetas by the mills is injurious to their interests. Please state whether you have any observations to make on this.

24. Have you any reason to suppose that the Indian Silk Industry is adversely affected by smuggling? If so, please give the evidence on which you rely.

FORM I.

Total expenditure incurred on the production of silk goods.

	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
1. Raw material					
2. Mill labour .					
3. Power and fuel					
4. Current repairs and maintenance.					
5. Supervision and establishment.					
6. Miscellaneous, rent, Municipal taxes, insurance, etc.					
7. Other items .					
Total .					

FORM II.

Works cost per yard of cloth.

—	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
1. Raw material					
2. Mill labour .					
3. Power and fuel					
4. Current re- pairs and maintenance.					
5. Supervision and estab- lishment.					
6. Miscellaneous, rent, Municip- al taxes, in- surance, etc.					
7 Other items .					
Total					

4. Circular letters issued by the Tariff Board to all Provincial Governments, the Chief Commissioner, Delhi and certain Indian States.

(1) *Letter No. 510, dated the 14th May, 1938.*

The Tariff Board has been directed by Government of India, Department of Commerce, Resolution Tariffs No. 28-T(2)/38, dated the 9th of April, 1938, to enquire into the necessity for the continuation of protection for the Sericultural Industry provided by the Indian Tariff (Textile Protection) Amendment Act, 1934, which will determine on the 31st March, 1939.

2. A detailed questionnaire relating to the Sericultural Industry will issue in due course. In the meantime, the Tariff Board suggests that the authorities in those areas in which that industry is in operation should take in hand immediately the task of reviewing the progress of the industry during the period in which protection has been in force, so as to be able to reply with greater expedition to the questionnaire when it is issued.

3. The Tariff Board is required by the Government of India Resolution to consider how any recommendations that it may make will affect the handloom industry. I am accordingly directed to forward a copy of the questionnaire relating to that industry and to request that replies, with six spare copies, may be sent so as to reach the Board's office at Poona, if possible, not later than July 15th. I am also to suggest that copies of this questionnaire be sent to representatives of the handloom industry in

your area for their opinion particularly on questions of a practical nature such as costing. The Board hopes to be able to visit some of the important handloom areas during the course of its enquiry, and would be glad to have the opportunity of testing the figures supplied to it by questioning persons actually engaged in the handloom industry.

(2) *Letter No. 544, dated the 24th May, 1938.*

In continuation of my letter No. 510, dated the 14th May, 1938, I am directed to forward the detailed questionnaire regarding the sericultural industry promised in paragraph 2 thereof. The Tariff Board hopes that you will send a reply (with 5 spare copies) to this questionnaire as soon as possible, and in any case not later than the 23rd of July, 1938.

(3) *Letter No. 613, dated the 17th June, 1938.*

In continuation of this office letter No. 544, dated the 24th May, 1938, I am directed to forward herewith a copy of the questionnaire issued by the Board for Importers and Traders.

(4) *Letter No. 639, dated the 27th June, 1938.*

I am directed to forward 10 copies of a questionnaire intended for mills mainly engaged in the manufacture of silk and artificial silk goods. It is not intended for cotton mills or other concerns which turn out products containing only a small proportion of silk or artificial silk. I am to request that copies be forwarded to any such concerns that exist in your Province State. The Board will be grateful if replies to the questionnaire are sent not later than July the 20th, 1938.

5. Government of His Highness the Maharaja of Mysore.

- (1) *Memorandum presented to the Indian Tariff Board appointed by the Government of India to enquire into the question of continuance of protection for the Sericultural Industry. (June 1938.)*

I.—INTRODUCTORY.

The Indian Tariff Board after an exhaustive enquiry in 1933 found that the Sericultural Industry was eminently fitted for protection as it satisfied all the conditions laid down by the Fiscal Commission.

The enquiry showed that although the industry has great natural advantages in India and is of great economic value to the country, it cannot in its present condition exist without protection. About the importance of the industry in the agricultural and industrial economy of the country the Board said: "We regard the industry as occupying an important place in the agricultural economy of the country providing a subsidiary occupation and additional resources for a portion of the teeming population which draws its sustenance from the land and affording opportunities for useful, profitable and congenial employment for some of the educated classes. The industry is also important as supplying the widespread silk weaving industry with much of its raw material. The collapse of the Indian Sericultural Industry would render the Indian silk weaver entirely dependent on imported raw materials or inferior substitutes."

The Board recommended the levy of protective duties on imported silks "to afford the local industry time in which to reorganise itself, to reduce its cost of production by cheapening mulberry leaf, eliminating loss in cocoon production and improving the efficiency of its reeling methods and to introduce some degree of method and system into its marketing".

II.—ACTION TAKEN TO IMPLEMENT THE TARIFF BOARD'S PROPOSALS FOR REORGANISING THE INDUSTRY.

A detailed account of the present condition of the sericultural industry and its organisation in Mysore, with special reference to the action taken by the State to improve and develop the industry, is given in the appended Note. Action taken in the more important matters affecting the industry since the last report of the Tariff Board and on the line recommended by them may be briefly indicated here.

(1) **IMPROVEMENT IN MULBERRY CULTIVATION.**—(a) *Increasing extent under Seedling Plantations.*—Seedlings are raised in Government Farms and cuttings supplied free of cost to sericulturists. The yield from "Seedling Plantations" is found to be 15 per cent. more than from "Cutting Plantations".

(b) *Formation of Mulberry Topes.*—Saplings fit for being raised as trees are being supplied on a large scale to sericulturists from Government Farms free of cost. The sericulturists are also being induced to raise their own saplings under the guidance of the departmental staff. Government have sanctioned a scheme for the grant of bonus on a liberal scale to sericulturists for raising mulberry topes.

(c) *Experimental work has been undertaken in the following directions:—*

- (1) Improvement of local mulberry by selection.
- (2) Improvement of local mulberry by grafting and budding.
- (3) Introducing foreign varieties.

(d) *Improvement in Cultural Operations.*—The results of experiments conducted in Government Farms in regard to improved cultural operations and manures are being communicated to the sericulturists. A number of them have taken to the use of groundnut oil cake and ammonium sulphate as manure for their gardens. The Government Silk Farms stock the manures and sell them to the sericulturists at cost price. The use of these manures in rotation with farmyard manure has resulted in increasing the output of leaves per acre without increasing the cost.

(2) **IMPROVEMENTS IN REARING METHODS WITH A VIEW TO SECURING HIGHER YIELDS AND REDUCING PRODUCTION COSTS.**—(a) Experiments are being conducted in Government Silk Farms with different foreign races and combinations of these with the local race in preparing crossbreeds to find out the foreign races and combinations best suited for different seasons.

(b) The supply of crossbreed layings which give high yields is being steadily increased.

(c) The sericulturists are being educated in improved methods of rearing by conducting demonstrations in their houses, and as a result, the yield of cocoons as well as silk per acre has gradually increased. The present average yield of cocoons per acre in the case of Mysore layings is about 350 lbs. and in the case of the crossbreed layings it is about 450 lbs., as against 260 lbs. of Mysore cocoons five years ago. The average production of silk per acre has increased from 20 lbs. to 30 lbs.

(d) Special attention is being paid to rearing in seed producing areas by supply of layings free of cost to all the seed rearers and by inspecting

the rearing in all the stages. This has prevented the loss of crops due to pebrine even where people use cocoons for seed. This has also rendered possible the improvement of the Mysore race by selection.

(e) After conducting cellular rearings of foreign races in the Government Farms, disease-free layings are distributed to selected rearers within easy reach of the Farms to obtain adequate supplies of seed cocoons of foreign races for increasing the supplies of cross-breed layings.

(f) The number of Government Grainages has been increased from 6 to 10 and of aided grainages from 16 to 25. The number will be increased to 30 in 1938-39. Nine Government Grainages and 18 of the Aided Grainages are preparing cross-breed layings and the supply of these layings has increased from 567,000 in 1931-32 to 7,000,000 during 1937-38.

The total supply of disease-free layings from all institutions has increased from 32 lakhs in 1931-32 to about 100 lakhs in 1937-38 and is expected to go up to 135 lakhs in 1938-39.

Government have sanctioned the reduction in the sale price of disease-free layings from one rupee to annas eight per 100 Mysore layings and from Rs. 1-8 to Re. 1 per 100 cross-breed layings since March, 1934, as a measure of relief to the sericulturists.

The Aided Grainages are being given a bonus of Rs. 5 per 1,000 layings prepared and distributed by them. A sum of Rs. 80,650 has been paid as bonus up to end of June, 1938.

Selected seed rearers have reared about 900 lakhs of seed cocoons during 1937-38 as against 250 lakhs in 1931-32.

(3) IMPROVEMENTS IN REELING METHODS.—(a) The quality of silk reeled in the country charkhas is being steadily improved and the reelers are also paying special attention to improve the quality of the silk waste. Roughly 40 per cent. of the raw silk produced in the State may be classified as first class as against about 20 per cent. five years ago.

(b) Government have granted substantial concessions to a Joint-Stock Company called "The Mysore Silk Filatures" which propose to establish one Filature of 200 basins to begin with, to be increased ultimately to 1,000 basins.

(c) The Mysore Spun Silk Mills, Ltd., Channarayana, a Joint-Stock Company started with the assistance of Government, has commenced work since March, 1938. It is expected that the entire quantity of silk waste produced in the State will be dealt with by this Factory.

(4) EXPERIMENTS.—In co-operation with the Government of India, who have kindly sanctioned special grants for the purpose, the following items of Research work have been undertaken by the Department of Sericulture since 1935:—

- (a) Refrigeration of Multivoltine silk-worm eggs.
- (b) Refrigeration of Multivoltine seed cocoons.
- (c) Refrigeration of cross-breed layings.
- (d) Refrigeration of seed cocoons and eggs from the same (combined).
- (e) Determination of the period of hibernation in the case of Univoltine and Bivoltine seed.

The results of the first experiment mentioned above are now being applied in Government and Aided Grainages where cold storage facilities have been made available.

(5) LEGISLATION.—A draft bill for controlling the seed supply and penalising the use of unexamined seed has been prepared and sericulturists are being educated to realise the advantages of having such control.

(6) **SERICULTURAL EDUCATION.**—(a) All the Central Farms in the State have been taking educated men and also sericulturists for training in improved methods.

(b) Sericulture has been introduced as a subject of study in some of the Middle Schools in sericultural areas.

(c) The Mysore University have decided to introduce Post-Secondary Diploma Course in Sericulture.

(7) **AUXILIARY ORGANISATIONS.**—(a) A Board of Sericulture, consisting of officials and non-officials interested in the silk industry and presided over by the Member of Council in charge, was constituted in 1935 to advise the Government in regard to the development of the silk industry.

(b) The Mysore Silk Association has been working in close co-operation with the Department of Sericulture.

(8) **COCOON MARKETS.** Three Cocoon Markets have been started at Channapatna, Closepet and Mugur, so that the rearers and reelers may meet in a common place and transact business. These markets are gradually becoming popular. (*Vide* Annexure VIII of the appended Note for rules regarding Cocoon Markets.)

The total transactions in all the three markets during 1937-38 amounted to about 200,000 lbs. of Cocoons.

(9) **CONDITIONING HOUSE.**—Arrangements have been made to test the raw silk produced in the factories owned by the Mysore Filatures, Ltd., and to issue certificates of tests free of cost pending the establishment of a Silk Conditioning House.

(10) **COLLECTION OF STATISTICS.**—A survey of all the sericultural villages in the State was conducted during 1937-38 and statistics relating to all aspects of the industry have been collected and are under compilation.

(11) **FINANCIAL ASSISTANCE.**—Everything possible is being done by the Government of Mysore to assist the sericulturists to reduce the cost of production of Mysore Silk and to stabilise the industry. The expenditure on the Department of Sericulture alone increased from Rs. 1,04,000 in 1933-34 to Rs. 2,18,105 in 1937-38 and is expected to go up to Rs. 2,45,000 during 1938-39. The Government of Mysore have spent about 22 lakhs of rupees on the Sericultural Industry during the 11 years from 1927-28 to 1937-38, exclusive of the amounts spent on direction, improvement of handloom weaving and silk throwing, as can be seen from Annexure III to the appended Note.

(12) **GENERAL.**—The department has also been keeping in close and constant touch with all the measures adopted from time to time in Japan for the improvement of the industry by maintaining a correspondent in Japan. The methods of development in Mysore have closely followed those in Japan in regard to improving of mulberry cultivation, elimination of failures of crops and securing higher yields of cocoons. Attempts have also been made to secure a higher yield of silk by adopting better methods of reeling. As a result of all the measures adopted, it is expected that qualitatively and quantitatively the yield of silk will be gradually improved.

From the above résumé it will be seen that the State as well as private agencies have been continuously and seriously applying themselves to reorganise and improve the industry in all the directions in which the Tariff Board have laid special emphasis.

III.—RESULTS OF IMPROVEMENT MEASURES ADOPTED.

Typical instances of present costs, based on information collected from individual sericulturists, are given below, which indicate the possibilities

of reducing costs in all directions by the measures adopted by the Department:—

Recurring Expenditure per acre of Garden.

No.	Particulars.	Dry gardens.	Tank irrigated gardens.	Deep well irrigated gardens.	Shallow well irrigated gardens.
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1.	Land Revenue	1 8 0	6 0 0	3 8 0	8 0 0
2.	Ploughing or digging, harrowing and hoeing	30 0 0	24 0 0	25 0 0	18 12 0
3.	Manure and manuring	15 8 0	61 8 0	106 12 0	47 8 0
4.	Pruning	0 8 0	3 0 0	...	4 11 0
5.	Weeding	0 8 0	...	10 2 6	...
6.	Planting failed pits and miscellaneous	2 8 0	2 0 0	...	5 0 0
7.	Irrigation . . . . .	...	2 0 0	50 0 0	39 6 0
	Total	50 8 0	98 8 0	195 6 6	123 5 0
	Yield of leaf in pounds	4,000 lbs.	8,000 lbs.	13,200 lbs.	10,000 lbs.
	Cost of producing 1 pound of leaf	0 0 2.4	0 0 2.36	0 0 2.8	0 0 2.36

Expenditure for Rearing with leaf produced in one acre of Garden.

No.	Particulars.	Leaf from dry gardens (T. Narsipur area).	Leaf from tank irrigated gardens.	Leaf from deep well irrigated gardens.	Leaf from shallow well irrigated gardens.
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1.	Cost of seed (cross-breed)	5 0 0	10 0 0	16 4 0	12 8 0
2.	Cost of extra labour	7 8 0	5 0 0	9 6 0	14 6 0
3.	Cost of food for worms	50 8 0	98 8 0	195 6 6	123 5 0
4.	Cost of appliances (including hire on chandrikes)	9 12 0	11 4 0	27 9 6	17 8 0
5.	Other expenses	2 8 0	3 0 0	10 0 0	5 0 0
	Total	75 4 0	127 12 0	258 10 0	172 11 0
	Yield of cocoons (Raw) (Cross-breed)	275 lbs.	560 lbs.	960 lbs.	650 lbs.
	Cost of producing 1 lb. of cocoons	0 4 5	0 3 8	0 4 4	0 4 3
	Leaf required for producing 1 lb. of green cocoons	14.5 lbs.	14.2 lbs.	13.7 lbs.	15.3 lbs.
	Yield of cocoons per 100 layings	55 lbs.	56 lbs.	59 lbs.	52 lbs.

Cost of working a Charkha per day and cost of production of one pound of Charkha Silk of different qualities by using cross-breed cocoons.

No.	Particulars.	I Quality.	II Quality.	III Quality.
1	Cost of cocoons— <i>I Quality. II Quality. III Quality.</i> 20 lbs. at 24 lbs. at 25 lbs. at 5 as. per 5 ps. per Rs. 7/8 for lb. lb. 25 lbs.	Rs. a. p. 6 4 0	Rs. a. p. 7 8 0	Rs. a. p. 7 8 0
2	Cost of labour— Reeler 0-8-0 0-8-0 0-6-0 . Turner 0-4-0 0-4-0 0-2-0 .	.. 0 12 0	.. 0 12 0	.. 0 8 0
3	Cost of fuel	0 6 0	0 6 0	0 4 0
4	Cost of water including wages, for waterman.	0 2 0	0 2 0	0 2 0
5	Selling expenses (Commission to raw silk merchants).	0 2 3	0 3 0	0 3 5
6	Transport of cocoons and brokerage	0 3 0	0 3 0	0 2 3
7	Contingencies	0 1 6	0 1 9	0 1 9
8	Supervision and management	0 1 3	0 1 0	0 0 9
9	Total	8 0 0	9 4 9	8 14 2
10	Deduct cost of waste— <i>I Quality. II Quality. III Quality.</i> 0-8 lb. 1 lb. 1 lb.	0 4 0	0 5 0	0 5 0
11	Total works cost for silk— <i>I Quality. II Quality. III Quality.</i> 1 lb. 16 tolas. 2 lbs. 2 lbs. 12 tolas	7 12 0	8 15 9	8 9 2
12	Works cost of 1 lb. of silk	5 8 7	4 7 11	3 11 7
13	Interest on working capital (12 per cent. per annum, 3 months out-put.)	0 2 8	0 2 3	0 2 3
14	Depreciation at Rs. 3 a year— Cost of charka—Rs. 15, Life—5 years	0 0 3	0 0 3	0 0 3
15	Net cost of 1 lb. of raw silk	5 11 6	4 10 5	3 14 1
	Rendita	14-3	12-0	10-8

N.B.—The cost of cocoons is the rate reported to have been paid by reelers for cross-breed cocoons.

In the year 1937-38, the acreage under mulberry was about 30,000. On this basis the requirement of the sericulturists would be about 300 lakhs of layings. The Sericultural Department has succeeded by gradual improvements to increase the supply of layings up to 100 lakhs during 1937-38, and this will further be increased to 135 lakhs during 1938-39. About one-third of the requirement of disease-free layings has thus already been made available to the sericulturists. But the improvement has been really much more than this, inasmuch as by the control of seed cocoons in the seed producing areas, it has been possible to eliminate diseases, so that even in the case of unexamined seed, failure of crops has been reduced to a considerable extent. It may be safely computed that at present over 70 per cent. of the seed supply to the sericulturists is from controlled sources.

No effort has been spared to take full advantage of the protection, such as it is, afforded to the industry now. But, unfortunately, owing to the inadequate measure of relief granted by the Government of India, as also owing to the short period during which such protection has been in force, the industry finds itself to day in the same condition as it was at the time of the last Tariff Board Enquiry—if indeed it has not grown steadily worse as a result of the continued dumping of cheap foreign, more particularly Japanese, silks into this country.

IV.—CONTINUED DECLINE IN EXTENT UNDER MULBERRY OWING TO FOREIGN COMPETITION.

Area Under Mulberry.—The effect of such dumping will be seen reflected in the variations in the acreage under mulberry since 1931-32 as given below:—

Year.	Total area under mulberry (area.)
1931-32	36,511
1932-33	36,399
1933-34	32,869
1934-35	30,223
1935-36	28,528
1936-37	25,132
1937-38	26,500

It would doubtless not be alarming if the area thrown out of mulberry had been utilised for raising other commercial crops yielding an equally good return to the sericulturist. But as a matter of fact it has not been so. The lands, of course, have not been left fallow but in the absence of any inducement to grow mulberry, as also from the small nature of the holdings, the sericulturist has been forced to substitute ordinary food crops with the result that his income has been greatly reduced.

V.—TREND OF IMPORTS OF FOREIGN RAW SILK MANUFACTURES AND SUBSTITUTES.

The aggressive nature of the competition which the Indian silk industry has been forced to face will be evident from the statistics furnished in the paragraphs that follow.

(a) *Imports of raw silk and other materials from foreign countries.*—The imports of raw silk into India during several years from 1931-32 to end of 1937-38 are noted below:—

Year.	Quantity in lbs.
1931-32	1,562,985
1932-33	3,186,262
1933-34	2,379,197
1934-35	2,216,920
1935-36	2,191,436
1936-37	1,974,489
1937-38	2,535,274

It is seen that the imports of raw silk which were about one million and a half pounds in 1931-32 went up suddenly to about three million pounds in 1932-33. During 1934-35 and 1935-36 the imports have been round about two million pounds per year. In 1936-37, the imports fell below the mark of two million pounds. But in 1937-38 they have again reached the high figure of 2½ million pounds.

One disquieting feature about the present situation is the gradually increasing imports of Japanose silk into this country. The imports of raw silk from Japan, which amounted to about 165,000 lbs. during 1932-33 when the last Tariff Board Enquiry was held, have gone up to about 1,405,000 lbs. during 1937-38.

(b) *Silk Yarn, Noils and Warps*, imported into India from 1931-32 to end of 1937-38 are noted below:—

Year.	Quantity in lbs.
1931-32	1,710,000
1932-33	3,010,189
1933-34	2,027,681
1934-35	3,293,063
1935-36	3,628,395
1936-37	2,444,664
1937-38	2,337,298

From the above figures it will be seen that the imports of these articles are above the normal of 15 lakhs based on the average annual import figures for five years prior to 1931-32. Of the 2½ millions of pounds of imports under this head in 1937-38, imports from Japan amounted to nearly 1,800,000 pounds.

(c) *Imports of Silk Piece-goods*—

Year.	Quantity in yards.
1931-32	19,924,000
1932-33	34,957,931
1933-34	41,123,380
1934-35	33,339,724
1935-36	27,430,065
1936-37	21,562,753
1937-38	22,871,425

From the above figures it is seen that the imports in 1932-33 rose to the enormous figure of 34 million yards and in 1934-35 they went up to 41 million yards. Since then though there has been gradual fall yet the imports in 1937-38 stood at the high figure of 22 million yards.

(d) *Good of Silk mixed with other materials.*—The imports of these materials were only five million yards in the year 1931-32, but in 1934-35

the imports went up to 13 million yards ~~and suddenly fell to~~ six million yards in 1936-37 and have again increased in 1937-38 to seven million yards. The table below shows the trend of imports of these materials from 1931-32 to end of 1937-38:—

Year.	Quantity in yards.
1931-32	5,089,600
1932-33	10,103,272
1933-34	9,853,399
1934-35	13,371,335
1935-36	8,802,323
1936-37	6,232,051
1937-38	7,031,657

(e) *Artificial Silk Yarn*.—The imports of artificial silk yarn have increased enormously since 1932-33 as can be seen from the table below:—

Year.	Quantity in yards.
1932-33	11,002,093
1933-34	9,808,919
1934-35	16,614,949
1935-36	14,911,162
1936-37	17,628,884
1937-38	31,589,038

While in 1932-33, India imported 11 million pounds, in 1936-37, the imports went up to 17 million pounds and in 1937-38 they have reached the high figure of 31 million pounds, imports from Japan alone amounting to 28,238,000 lbs. in 1937-38.

From the information furnished above it will be clear that the protection now afforded to the Indian silk industry has had no effect whatsoever on the course of the imports of cheap foreign silks into this country.

VI.—PRESENT PROTECTION INADEQUATE.

The Government of Mysore have all along been urging on the attention of the Government of India the need for adequately protecting the silk industry against this foreign competition. After the Tariff Board submitted their report in 1933 and the Government of India were considering the recommendations of the Board, the Government of Mysore again represented to the Government of India that the amount of protection that was proposed to be given would not meet the needs of the industry. In spite of these representations, however, the Government of India fixed the measure of protection at the present level.

It is not understood on what basis the Government of India decided to consider that protective duty at the present rate was sufficient. On the last Tariff Board's showing alone it is clear that a duty at the rate of 50 per cent. *ad valorem* or Rs. 2-6 per pound was the least that the industry deserved, though it has all along been urged that the duty should be fixed at not less than 100 per cent.

A deputation of the Mysore Silk Association again waited on the Government of India in September, 1936, and laid their case before them pointing out the urgent need for increased protection to the industry. But nothing was done in the matter.

In regard to the measure of protection, the last Tariff Board has stated as follows:—

"On full consideration of all the relevant facts we have decided to base our recommendations on a cocoon price of five annas a pound. We recognise that if sericulture is to develop, the rearer must be

assured of a price for his cocoons sufficient to remunerate him for his labour and comparable with the return he might expect to receive if he cultivated his land with a crop other than mulberry. Nor do we regard the price as unnecessarily high. We have noticed that at the present low level of prices both in Mysore and in Bengal there has been a fall in the acreage of land under mulberry; and this tendency can be checked only by raising the price of cocoons. Moreover we wish to fix the price of cocoons high enough to encourage the rearer to devote more attention to his worms, so that by sufficient and suitable feeding and by careful treatment in other ways the quality of the races may be improved, that a better class of cocoons may be obtained. We believe that a price of five annas a pound is high enough to do this, while it is not so high as to encourage extravagant hopes of a return of the boom prices."

On the above basis the Tariff Board fixed the fair selling price of Charkha Silk of first quality at Rs. 6-2-6 per pound while the average *ex-duty* price of imported filature and re-reeled silks competing against it was taken at Rs. 3-12 per lb., showing a difference of Rs. 2-6-6 per lb. They also pointed out that about the same difference, *viz.*, Rs. 2-6-6, was observed between the *ex-duty* prices of lower grade imported silks and second and third quality Indian Charkha Silks. They, therefore, recommended the levy of specific duty of Rs. 2-6 per pound or a duty of 50 per cent. *ad valorem* whichever was higher.

The Board in their recommendation also pointed out that the prices of silk had gone down steadily since they had started the enquiry. As a matter of fact the price of Canton Silk had gone down to Rs. 3-11-5 a pound by the time the Government of India took action in April, 1934, on the report of the Tariff Board. In spite of this, the Government of India decided to grant protection only to the extent of a duty of 25 per cent. *ad valorem* plus a specific duty of 14 annas per pound. On the prices of silk then prevalent, this worked out to a duty of Rs. 1-10 per pound, thus falling short by 12 annas of even the very moderate rate of duty recommended by the Tariff Board.

VII.—AVERAGE DECLARED VALUES OF FOREIGN SILK.

When the Tariff Board submitted their report in May, 1933, the average declared value of imported raw silk was Rs. 3-3-5 per pound. In July of the same year, the value went down to Rs. 2-7-1 per pound. Between August and October, 1933, it was round about Rs. 3-3 per pound and in December, 1933, it was Rs. 2-15-11 per pound. In April, 1934, when the Government of India imposed the existing protective duties, the average declared value of raw silk was Rs. 2-12-4 per pound. At the close of 1934, the average declared value had fallen down to Rs. 2-7 per pound. In March, 1935, it went down to the low figure of Rs. 2-1-6. At the close of 1936 the average declared value rose to Rs. 2-12-6 per pound. During a few months in the year 1937, the average declared value rose appreciably and the prices of silk also went up. In October, 1937, the average declared value was about Rs. 4-2-7 per pound, but in December, 1937, it fell to Rs. 3-10-3 per pound and in April, 1938, it fell further to the low figure of Rs. 2-12-11 per pound, which is about the same level at which it stood in April, 1934. It may be stated that since the Tariff Board submitted their report, there has been continuous fall in the average declared values, excepting for the period from January, 1937, to February, 1938, when there was a temporary rise in the values. This temporary rise in the silk prices induced the sericulturists to plant more mulberry, and about 5,000 acres were newly planted. But the subsequent fall in prices has had the effect of discouraging further extension of mulberry and it is apprehended that there might even be a shrinkage in the area if the present market conditions continue. On the whole the tendency for silk prices seems to be downward as will be seen from Annexure A.

VIII.—DETERIORATION IN EXCHANGE VALUES OF CHINESE CURRENCY.

The continuous fall in the Exchange Value of Chinese Currency has contributed not a little to this deterioration in silk prices. At the time the last Tariff Board drew up their report 100 Shanghai Taels were worth Rs. 117. To-day the Exchange Value of 100 Shanghai Taels is only Rs. 54, the depreciation being as much as 54 per cent. In Annexure A1 is given the Exchange Rates during each month from January, 1934, to end of May, 1938.

IX.—TREND OF FOREIGN SILK PRICES AND PRICES OF MYSORE SILK AND MYSORE COCOONS.

The rates at which imported silks were sold in the Indian markets during the several years from 1933 to 1938 can be seen from Annexure B and the Graph.*

The low prices of foreign silks in the Indian market affected the Mysore Silk directly and the rates at which Mysore Charkha Silk was sold during the several months from 1933-34 are given in Annexure C and Graph.*

The prevailing low prices of foreign silks have had a disastrous effect upon Mysore cocoon prices. The prices which the Mysore rearer realised per pound of cocoons during the several months of the years from 1933 to 1938 are indicated in Annexure D and Graph.* It will be seen from the statement that at no time during the whole of this period, except for a few broken periods in the year 1937, has the rearer realised any price approaching 5 annas per lb. of Mysore cocoons.

X.—MEASURE OF PROTECTION NEEDED.

Though attempts have been made to reduce production costs of silk in all the stages, yet, on account of the shortness of the period for which protection was afforded, it has not been possible to bring about a universal reduction in costs. Further, whatever economies it has been possible to secure have been more than neutralised by the continued fall in the prices of silk.

The last Tariff Board in framing their recommendation regarding the measure of protection adopted Rs. 3-12 as *ex-duty* price of foreign silk of first class. The actual declared value at that time was only Rs. 3-3-5. Since then the declared values have fluctuated within wide limits. The average for the period from April, 1934, to April, 1938, works out at Rs. 3. The declared value for April, 1938, is only Rs. 2-12-11. The price of Canton silk has further fallen in June, 1938, to about Rs. 4 per lb. The *ex-duty* price will on this basis be only Rs. 2-8. This decline in silk prices has been continuous for some time past. It may therefore not be unreasonable to anticipate that the *ex-duty* price of foreign silk will not exceed Rs. 2-8 a lb. for some appreciable time to come. On this basis, and on the basis of the fair selling price of Indian silk at Rs. 6-2 per lb. as fixed by the Tariff Board, the measure of protection required should be in the neighbourhood of Rs. 3-10 per lb. in order to bring the price of imported silk to the level of the fair selling price of Indian silk. Any protective duty falling short of Rs. 3-10 per pound, therefore, will not give the relief which the industry deservedly stands in need of at the present time.

XI.—PERIOD FOR WHICH ASSISTANCE IS NECESSARY.

As regards the period of protection, the Tariff Board stated as follows:—

“The industry will need protection against the competition of foreign imports for such period as may be required to enable it to reap the benefit of the reorganisation which we contemplate. We do not consider that this period should be long. We hope that the Government will set up the central organisation as soon as possible. All local and State Governments concerned should realise that under our scheme of

protection they are given a strictly limited time within which to put in force the measures necessary for the rehabilitation of the industry and it should be the duty of the central organisation to see that time is not wasted. We consider that five years should be a sufficiently long period for the reorganisation to take effect and to result in such a reduction in cost as to render the industry independent of the protective duty. But we recognise that it is impossible for us now to predict with certainty what the effect of the reorganisation will be, nor can we foresee how long the present depression will last or the unfair competition continue. World economic conditions may change and the measure of protection which we propose may exceed or fall short of actual requirements."

Recent tendencies of imports of silk and silk prices have shown that the apprehensions of the Tariff Board indicated in the concluding portion of the above quotation were fully justified. Both the depression and unfair competition have continued unabated; there has been no material change for the better in world economic conditions; and the measure of protection has proved of no benefit at all to the industry.

It has been repeatedly pointed out, and admitted, that the measures to reduce the costs of production take a long time to become effective. The cost of mulberry leaf, which forms practically 75 per cent. of the total cost of production of cocoons, cannot be reduced within a short period of five years.

The measures to be adopted to reduce the cost of production of mulberry leaf are introduction of tree plantations, seedling plantations, raising of higher yielding varieties, use of artificial manures, etc., and those improvements take a long time to be universally established and to yield the expected returns. In the very nature of things, a good deal of preliminary work has to be done and supplies and services have to be spread over a fairly long period of time. Tree plantations naturally take a long time before they can give the maximum yield. All these practical difficulties can only be overcome gradually. As already indicated, systematic action has been taken to adopt these measures and with encouraging results.

The next and probably the most important measure for reducing the cost of production of silk is the prevention of losses due to bad seed and the supply in increasing quantities of seeds of hybrid races which give higher yields. The Government have already done much work in this direction but it would be some time before the whole State could be supplied with examined seed and seeds of cross-breeds. Seed campaign work has been intensified and diseases have been controlled to a very large extent.

Considering all these factors any protection to be effective should, in the opinion of Government, cover a sufficiently long period, say, at least 15 years.

XII.--EFFECT OF PROTECTIVE DUTIES ON THE HANDLOOM INDUSTRY.

The last Tariff Board held that the Indian silk industry is equally important as supplying the needs of the wide-spread silk weaving industry and the collapse of the Indian silk industry would render the Indian silk weaver entirely dependent on imported raw material or inferior substitutes. To safeguard the interests of the handloom industry in India, the duty on imported silk piecegoods, etc., should also be raised adequately so that the price of the imported fabrics is brought up to the level of the fair selling prices of indigenous handloom products. The handloom weavers in India have realised the advantages of using better reeled silk and larger quantities of better reeled silks will shortly be made available in Mysore as a result of the starting of up-to-date filatures.

Experience has shown that natural silk can at no time be entirely displaced by other substitutes. Pure silk will always have a place in the economy of things. Certain kinds of pure silk fabrics can be produced only

on handlooms and articles made of pure silk cater to the requirements of a certain class of consumers. The imposition of higher rates of import duties on foreign silks need not necessarily prove detrimental to the interests of the handloom weavers nor of the consumer, provided the rates of duty on imported woven fabrics are also correspondingly increased.

XIII.—PREFERENCE TO BE GIVEN TO INDIAN SILK AS AN EMPIRE PRODUCT.

The Tariff Board have recognised the importance of finding a wider market for Indian silk within the Empire and more particularly in the manufacture of munitions of war. Mysore silk stands up to the specifications required for the manufacture of aeroplane parachutes, etc. If a sufficient off-take of the material for such purposes can be secured it will open out a vast field for the expansion of the industry, assured as it will then be of an adequate return for those engaged in it. The need for fostering the silk industry in India, which is the only important source of supply of raw silk in the Empire, cannot therefore be sufficiently emphasised.

XIV.—SUMMARY OF REPRESENTATIONS.

The Government of Mysore are convinced that the Indian silk industry stands in urgent need of much greater assistance than what has now been accorded to it. In their opinion the protection now granted should be still further liberalised and spread over a sufficiently long period. They wish to urge on the attention of the Tariff Board the need for the grant of the following measures of relief:—

- (1) The rate of import duty on foreign silks should be adequately enhanced. Nothing less than a specific duty of Rs. 3-10 per lb. is likely to bring about a parity of foreign and indigenous silk prices.
- (2) The same rate of duty as on raw silk should be levied on silk yarn, spun silk and thrown silk as well as on noils as otherwise, there would be greater imports of these articles placing the Indian silk industry at a great disadvantage.
- (3) The rate of duty on silk piecegoods should also be raised adequately in order to give the necessary relief to the handloom weavers and to the Indian silk weaving industry and discourage increasing imports of woven goods with a corresponding reduction in imports of raw silk and twists.
- (4) In determining the levy of duty the procedure of fixing the tariff values for the whole year should be done away with and duty should in all cases be levied on the invoice values of the imported goods. This change is necessary in view of the fact that under the present system there is a scope for the imported goods of higher value to be classified for customs purposes under heads assessed to lower rates of duty. As a specific instance, attention may be drawn to the existing schedule where the tariff valuation of Japanese Filature Silk has been fixed at Rs. 4-12 per lb. On this valuation, the selling price of Japanese Filature Silk in the Indian markets should be in the neighbourhood of Rs. 8-13; whereas, it is actually being sold in the Indian markets at rates varying from Rs. 5-6 to Rs. 5-10 a lb.
- (5) The period for which protection is granted should be at least 15 years.
- (6) Indian silk should be accorded Imperial preference and substituted for Italian and Japanese silks in the manufacture of war materials so as to create a wider market for the industry.

BANGALORE. }
June, 1938. }

M. S. RAMCHENDRA RAO,
Director of Industries and Commerce in Mysore.

ANNEXURE A.

*Average Declared Value of Imported Raw Silk into India From
1933 to 1938.*

Months.	1933.	1934.	1935.	1936.	1937.	1938.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
January . .	3 5 4	2 14 0	2 5 10	2 13 3	3 11 8	3 9 7
February . .	3 6 8	2 14 11	2 4 6	2 10 5	3 15 11	4 4 5
March . .	3 6 8	2 14 11	2 4 6	2 14 3	4 3 1	2 15 7
April . .	3 3 3	2 12 4	2 11 6	2 9 1	3 8 10	2 12 11
May . .	3 3 5	2 11 0	2 7 3	2 15 7	3 5 2	..
June . .	3 2 4	2 12 4	2 6 2	2 11 2	3 6 11	..
July . .	2 7 1	2 11 0	2 5 6	2 7 2	3 4 11	..
August . .	3 3 0	2 13 6	2 6 9	2 12 11	..	..
September . .	3 3 2	2 11 4	2 13 1	2 12 11	4 0 9	..
October . .	3 3 2	2 13 7	2 6 0	2 13 7	4 2 7	..
November. .	3 0 6	2 9 6	3 1 3	2 15 1	4 0 7	..
December . .	2 15 11	2 7 0	2 15 11	2 12 8	3 10 3	..

*Declared Value of Silk Piece-Goods imported into India (Per Yard)
From 1933 to 1938.*

Months.	1933.	1934.	1935.	1936.	1937.	1938.
	a. p.	a. p.	a. p.	a. p.	a. p.	a. p.
January . .	8 0	6 0	5 1	5 4	6 6	6 4
February . .	7 5	6 6	4 11	4 11	6 8	6 0
March . .	7 5	6 6	4 11	4 10	6 6	5 11
April . .	8 0	8 0	5 3	4 10	6 7	6 10
May . .	7 3	7 3	5 2	4 10	6 1	..
June . .	7 7	7 9	5 0	5 8	5 7	..
July . .	8 2	5 6	5 1	5 11	5 9	..
August . .	7 1	5 2	5 1	5 9	..	..
September. .	6 9	5 2	5 4	6 0	7 3	..
October . .	7 1	5 5	5 9	6 3	6 8	..
November. .	6 11	5 10	5 9	6 3	6 4	..
December . .	6 7	5 7	6 0	6 6	6 8	..

ANNEXURE A-1.

Statement showing the Exchange Rates during each month from July 1934 to end of May, 1938, in Indian Rupees, per 100 Hongkong and Shanghai Dollars.

Months.	1934.		1935.		1936.		1937.		1938.	
	Hongkong.		Hongkong.		Hongkong.		Hongkong.		Hongkong.	
	Rs.	Shanghai.	Rs.	Shanghai.	Rs.	Shanghai.	Rs.	Shanghai.	Rs.	Shanghai.
January . . . . .	..	..	122	99	95	87	88	88	84-8	83
February . . . . .	..	..	125	105	95	87	88	88	84-8	83
March . . . . .	..	..	135-143	112-115	95	87	88	86 to 88	84-8	83
April . . . . .	..	..	142-155	112-118	95	87	88	88	84-8	83
May . . . . .	..	..	173-175	120-125	92	85	88	86	84-8 to 85-4	64-76
June . . . . .	..	..	175	125	92	85	88	86	85	54
July	103-105	94-96	162	116	92	85	84-88	83-8 to 86	..	..
August	105-108	96-99	162	116	92	85	83-4 to 84-8	82-4 to 83	..	..
September	108	99	162	116	92	85	84-8	83	..	..
October	120	109	..	..	88	85	84-8	83	..	..
November	121	99	105-162	88-116	88	85	84-8	83	..	..
December	120	99	95-105	87-88	88	88	84-8	83	..	..

The Japanese exchange which was at Rs. 84 per 100 yens in December 1932 has remained almost the same during the above period. The quotation on 20th June 1938 is Rs. 79 per 100 yens.

ANNEXURE B.

*Rates of Canton and Japan (White and Yellow) Silk of 20/22 Denier
(per lb.).*

(BOMBAY RATES.)

Fortnight ending with	Canton.		Japan.			
	Minimum.	Maximum.	White.		Yellow.	
			Maximum.	Minimum.	Maximum.	Minimum.
Year 1933.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
15th January .	..	4 14 11	..	..	..	..
31st „ .	4 11 7	4 12 8	..	..	..	..
15th February .	4 9 11	4 10 5	..	..	..	..
28th „ .	..	4 14 11	..	..	..	..
15th March .	..	4 13 9	..	..	..	..
31st „ .	..	4 7 1	..	..	..	..
15th April .	..	4 4 11	..	..	..	..
30th „ .	..	4 7 8	..	..	..	..
15th May .	..	4 7 1	..	..	..	..
31st „ .	..	4 5 5	..	..	..	..
15th June .	..	4 13 9	..	..	..	..
30th „ .	..	4 10 5	..	..	..	..
15th July .	4 10 5	4 11 0	..	..	..	..
31st „ .	4 10 5	4 11 0	..	..	..	..
15th August .	..	4 9 4	..	..	..	..
31st „ .	..	4 9 4	..	..	..	..
15th September .	..	4 8 3	..	..	..	..
30th „ .	4 6 0	4 6 7	..	..	..	..
15th October .	..	4 4 11	..	..	..	..
31st „ .	..	4 1 0	..	..	..	..
15th November .	..	3 12 0	..	..	..	..
30th „ .	..	3 8 8	..	..	..	..
15th December .	..	3 6 5	..	..	..	..
31st „ .	..	3 5 4	..	..	..	..

ANNEXURE B—contd.

Rates of Canton and Japan (White and Yellow) Silk of 20/22 Denier per lb.

(BOMBAY RATES.)

Fortnight ending with	Canton.		Japan.			
	Minimum.	Maximum.	White.		Yellow.	
			Maximum.	Minimum.	Maximum.	Minimum.
	Rs. s. p.	Rs. s. p.	Rs. s. p.	Rs. s. p.	Rs. s. p.	Rs. s. p.
Year 1934.						
15th January .	..	3 6 5	..	..	..	..
31st „ .	..	3 6 5	..	..	..	..
15th February .	..	3 14 4	..	..	..	..
28th „ .	..	3 15 4	..	..	..	..
15th March .	..	3 15 4	..	..	..	..
31st „ .	..	3 13 8	..	..	..	..
15th April .	..	3 13 8	..	..	..	..
30th „ .	..	3 11 5	..	..	..	..
15th May .	..	3 9 9	..	..	..	..
31st „ .	..	3 10 4	..	..	..	..
15th June .	..	3 12 9	..	..	..	..
30th „ .	..	3 12 7	..	..	..	..
15th July .	..	3 13 8	..	..	..	..
31st „ .	..	4 2 0	..	..	..	..
15th August .	..	4 2 6	..	..	..	..
31st „ .	..	4 3 0	..	..	..	..
15th September .	..	4 6 0	..	..	..	..
30th „ .	..	4 3 0	..	..	..	..
15th October .	..	4 3 0	..	..	..	..
31st „ .	..	4 2 0	..	..	..	..
15th November .	..	4 3 0	..	..	..	..
30th „ .	..	4 1 6	..	..	..	..
15th December .	..	4 2 0	..	..	..	..
31st „ .	..	4 5 0	..	..	..	..

ANNEXURE B—contd.

Rates of Canton and Japan (White and Yellow) Silk of 20/22 Denier per lb.

(BOMBAY RATES.)

Fortnight ending with	Canton.		Japan.			
	Minimum.	Maximum.	White.		Yellow.	
			Minimum.	Maximum.	Minimum.	Maximum.
YEAR 1935.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
15th January .	..	4 8 6	..	..	..	..
31st „ .	..	4 9 0	..	..	..	..
15th February .	..	4 10 0	..	..	..	..
28th „ .	..	4 10 0	..	..	..	..
15th March .	..	4 11 0	..	..	..	..
31st „ .	..	4 8 0	..	4 0 0	..	3 14 0
15th April .	..	4 7 6	..	4 3 0	..	4 0 0
30th „ .	..	4 8 6	..	4 2 6	..	3 15 0
15th May .	..	4 8 0	..	4 1 0	..	3 15 0
31st „ .	..	4 10 0	..	4 3 0	..	4 1 0
15th June .	..	4 10 0	..	4 3 0	..	4 1 0
30th „ .	..	4 10 6	..	4 3 0	..	4 1 0
15th July .	..	4 10 0	..	4 3 0	..	4 1 0
31st „ .	..	4 10 0	..	4 2 0	..	4 0 0
15th August .	..	4 10 0	..	4 2 0	..	4 1 0
31st „ .	..	4 6 6	..	4 3 0	..	4 2 0
15th September .	..	4 10 6	..	4 7 0	..	4 6 0
30th „ .	..	5 1 6	..	5 0 0	..	5 0 0
15th October .	..	5 12 6	..	5 6 0	..	5 5 0
31st „ .	..	5 12 0	..	5 12 0	..	5 10 0
15th November .	..	5 10 0	..	5 8 0	..	5 6 0
30th „ .	..	5 2 0	..	5 3 0	..	5 2 0
15th December .	..	4 12 0	..	4 12 0	..	4 12 0
31st „ .	..	4 10 0	..	4 13 0	..	4 12 0

ANNEXURE B—contd.

Rates of Canton and Japan (White and Yellow) Silk of 20/22 Denier per lb.

(BOMBAY RATES.)

Fortnight ending with	Canton.		Japan.			
	Minimum.	Maximum.	White.		Yellow.	
			Minimum.	Maximum.	Minimum.	Maximum.
Year 1936.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
15th January .	..	5 0 0	..	4 15 0	..	4 13 0
31st „ .	..	4 15 0	..	5 0 0	..	4 14 0
15th February .	..	4 15 0	..	5 0 0	..	4 14 0
29th „ .	..	4 15 0	..	5 0 0	..	4 14 0
15th March .	..	5 0 0	..	5 0 0	..	4 15 0
31st „ .	..	4 15 0	..	4 15 0	..	4 15 0
15th April .	..	4 14 0	..	4 14 0	..	4 15 0
30th „	5 0 0	..	5 0 0
15th May	5 0 0	..	5 0 0
31st „	5 1 0	..	5 2 0
15th June	5 0 0	..	5 0 0
30th „	5 0 0	..	5 0 0
15th July	5 0 0	..	4 14 0
31st „ .	..	4 13 0	..	5 2 0	..	4 13 0
15th August .	..	4 13 0	..	5 3 0	..	4 15 0
31st „ .	..	4 13 0	..	5 5 0	..	5 2 0
15th September .	..	4 12 0	..	5 5 0	..	5 1 0
30th „ .	..	4 14 0	..	5 6 0	..	5 4 0
15th October .	..	5 0 0	..	5 11 0	..	5 8 0
31st „ .	..	5 2 0	..	5 14 0	..	5 12 0
15th November .	..	5 1 0	..	5 13 0	..	5 14 0
30th „ .	..	5 4 0	..	6 1 0	..	6 3 0
15th December .	..	5 11 0	..	6 15 0	..	..
31st „ .	..	5 8 0	..	6 10 0	..	..

ANNEXURE B—concl'd.

Rates of Canton and Japan (White and Yellow) Silk of 20/22 Denier per lb.

(BOMBAY RATES.)

Fortnight ending with	Canton.		Japan.			
	Minimum.	Maximum.	White.		Yellow.	
			Minimum.	Maximum.	Minimum.	Maximum.
Year 1937.	Rs. s. p.	Rs. s. p.	Rs. s. p.	Rs. s. p.	Rs. s. p.	Rs. s. p.
15th January .	..	5 11 0	..	6 13 0	..	6 13 6
31st „ .	..	5 11 0	..	6 12 0	..	6 12 0
15th February .	..	5 10 6	..	6 9 6	..	6 10 0
28th „ .	..	5 8 0	..	6 8 0	..	6 8 0
15th March .	..	5 10 0	..	6 11 0	..	6 11 0
31st „ .	..	5 10 0	..	..	..	5 13 0
15th April .	..	5 8 0	..	6 9 6	..	6 9 6
30th „ .	..	5 7 0	..	6 9 0	..	6 9 0
15th May .	..	5 5 0	..	6 7 6	..	6 7 0
31st „ .	..	5 1 0	..	6 12 0	..	6 10 0
15th June .	..	4 12 0	..	6 8 0	..	6 6 0
30th „ .	..	5 1 0	..	6 11 0	..	6 9 0
15th July .	..	5 6 6	..	6 14 6	..	6 12 0
31st „ .	..	5 2 0	..	6 12 6	..	6 10 0
15th August .	..	4 14 0	..	6 11 0	..	6 9 6
31st „ .	..	5 5 5	..	6 13 0	..	6 10 0
15th September.	..	5 7 6	..	6 10 0	..	6 9 0
30th „ .	..	5 5 6	..	6 7 0	..	6 5 0
15th October .	..	5 0 0	..	6 2 0	..	6 2 0
31st „ .	..	5 0 6	..	5 15 0	..	5 14 0
15th November .	..	5 1 6	..	5 12 0	..	5 12 0
30th „ .	..	4 14 0	..	5 10 0	..	5 10 0
15th December .	..	4 12 0	..	5 8 0	..	5 8 0
31st „ .	..	4 14 0	..	5 10 0	..	5 10 0

ANNEXURE B—contd.

Rates of Canton and Japan (White and Yellow) Silk of 20/22 Denier per lb.

(BOMBAY RATES.)

Fortnight ending with	Canton.		Japan.			
	Minimum.	Maximum.	White.		Yellow.	
			Minimum.	Maximum.	Minimum.	Maximum.
Year 1938.	Rs. s. p.	Rs. s. p.	Rs. s. p.	Rs. s. p.	Rs. s. p.	Rs. s. p.
15th January .	..	4 13 0	..	5 9 0	..	5 8 0
31st	4 12 0	..	5 8 0	..	5 6 0
15th February .	..	4 12 6	..	5 8 6	..	5 8 0
28th	4 13 0	..	5 10 0	..	5 8 6
15th March .	..	4 14 6	..	5 13 0	..	5 11 0
31st	4 13 6	..	5 13 0	..	5 11 0
15th April .	..	4 10 9	..	5 10 6	..	5 9 0
30th	4 9 6	..	5 10 0	..	5 9 0
15th May .	..	4 7 9	..	5 7 0	..	5 7 9
31st	4 5 0	..	5 10 0	..	5 9 0
15th June .	..	4 1 6	..	5 6 6	..	5 4 0

ANNEXURE C.

Statement showing the rates of *Churka Silk* (per pound).

Fortnight, to which the information relates.	Kempanahalli.		Closepet, Channarayana, Marchanabale, Muduvadi.		Siddaghatta, Chickballapur, Kyalapur, Chinnasandra, and Venkagirikote.		Agrahar and Kollegal.	
	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
January to December 1933.								
15th January	5 7 0	5 10 0	4 11 0	5 7 0	5 4 0	6 0 0	3 15 0	5 9 7
31st "	5 7 0	5 10 0	4 8 0	5 7 0	5 1 0	6 0 0	3 15 0	5 9 7
15th February	5 4 0	5 10 0	4 5 0	5 7 0	5 0 0	6 0 0	3 15 0	5 9 7
29th "	5 4 0	5 10 0	4 5 0	5 7 0	5 0 0	6 0 0	3 15 0	5 9 7
15th March	5 4 0	5 10 0	4 2 0	5 7 0	4 14 0	6 0 0	3 12 0	5 9 7
31st "	5 4 0	5 10 0	3 15 0	5 7 0	4 13 0	6 0 0	3 12 0	5 9 7
15th April	5 4 0	5 7 0	3 15 0	5 4 0	4 13 0	5 13 0	3 6 5	5 6 5
30th "	4 14 0	5 1 0	3 12 0	4 14 0	4 8 0	5 4 0	3 0 0	4 12 9
15th May	4 11 0	4 14 0	3 9 0	4 8 0	4 2 0	5 1 0	3 0 0	4 12 9
31st "	4 8 0	4 14 0	3 6 0	4 8 0	4 2 0	5 1 0	3 0 0	4 12 9
15th June	4 8 0	4 14 0	3 6 0	5 0 0	4 5 0	5 0 0	3 2 0	4 12 9
30th "	4 8 0	4 14 0	3 6 0	4 10 0	4 2 0	5 0 0	3 2 0	4 12 9

15th July	4 5 0	4 8 0	3 9 0	4 8 0	4 2 0	4 14 0	3 2 0	4 3 3
31st "	4 5 0	4 8 0	3 9 0	4 8 0	3 12 0	5 1 0	3 2 0	4 12 9
15th August	4 5 0	4 8 0	3 6 0	4 8 0	3 12 0	5 1 0	3 2 0	4 12 9
31st "	4 5 0	4 8 0	3 6 0	4 5 0	3 12 0	4 14 0	3 1 11	4 9 7
15th September	4 2 0	4 5 0	3 3 0	4 5 0	3 9 0	4 11 0	2 14 1	4 6 5
30th "	4 2 0	4 5 0	3 3 0	4 5 0	3 9 0	4 11 0	2 14 1	4 6 5
15th October	4 2 0	4 5 0	3 3 0	4 5 0	3 9 0	4 11 0	2 12 10	4 9 7
31st "	4 2 0	4 5 0	3 3 0	4 2 0	3 8 0	4 11 0	2 12 10	4 9 7
15th November	4 0 0	4 3 0	3 0 0	3 15 0	3 6 0	4 9 0	2 12 10	4 9 7
30th "	4 0 0	4 3 0	3 0 0	3 15 0	3 6 0	4 9 0	2 12 10	4 9 7
15th December	4 0 0	4 3 0	3 0 0	3 15 0	3 6 0	4 9 0	2 12 10	4 9 7
31st "	3 15 0	4 2 0	3 0 0	3 15 0	3 6 0	4 8 0	2 12 10	4 9 7
January to December 1934.								
15th January	3 15 0	4 2 0	3 0 0	3 15 0	3 6 0	4 8 0	2 12 10	4 9 7
31st "	3 15 0	4 2 0	3 0 0	3 15 0	3 5 0	4 8 0	2 9 7	4 6 5
15th February	3 15 0	4 2 0	3 0 0	3 15 0	3 5 0	4 8 0	2 9 7	4 6 5
28th "	4 2 0	4 5 0	3 3 0	4 10 0	3 8 0	4 11 0	2 15 0	4 9 7
15th March	4 2 0	4 5 0	3 3 0	4 10 0	3 8 0	4 11 0	2 15 0	5 0 0
31st "	4 2 0	4 5 0	3 3 0	4 0 0	3 8 0	4 11 0	2 12 10	4 12 0

ANNEXURE C—contd.

Statement showing the rates of Charka Silk (per pound)—contd.

Fortnight, to which the information relates.	Kempnaballi.		Closepet, Channarayana, Manabasalaba, Muduvadi.		Siddaghatta, Chick ballapur, Kyalapur, Chinnasaundra, and Venkatagirikote.		Agrahar and Kollegal.	
	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
January to December 1934—contd.								
15th April	4 2 0	4 5 0	3 3 0	4 0 0	3 8 0	4 11 0	2 12 10	4 12 0
30th "	3 15 0	4 3 0	3 2 0	4 0 0	3 8 0	4 8 0	2 12 10	4 9 7
15th May	3 12 0	4 2 0	3 0 0	3 15 0	3 6 0	4 8 0	2 9 7	4 6 5
31st "	3 12 0	4 2 0	3 0 0	3 15 0	3 6 0	4 5 0	2 9 7	4 6 5
15th June	3 15 0	4 2 0	3 0 0	3 15 0	3 6 0	4 5 0	2 9 7	4 3 5
30th "	3 15 0	4 2 0	3 0 0	3 15 0	3 6 0	4 5 0	2 14 1	4 6 5
15th July	3 15 0	4 2 0	3 0 0	3 15 0	3 6 0	4 5 0	2 14 5	4 6 5
31st "	3 15 0	4 2 0	2 12 0	3 15 0	3 6 0	4 5 0	3 0 0	4 6 5
15th August	3 15 0	4 5 0	3 3 0	4 2 0	3 8 0	4 8 0	3 2 0	4 12 10
31st "	3 15 0	4 5 0	2 9 0	4 2 0	3 8 0	4 8 0	3 2 0	4 6 5
15th September	4 2 0	4 8 0	2 12 0	4 2 0	3 9 0	4 11 0	3 3 3	4 6 5
30th "	4 5 0	4 8 0	3 12 0	4 4 0	3 12 0	4 14 0	3 4 6	4 10 10

15th October	.	.	.	4 5 0	4 8 0	3 15 0	4 5 0	3 14 0	4 14 0	3 4 10	4 12 10
31st "	.	.	.	4 5 0	4 8 0	3 12 0	4 3 0	3 12 0	4 11 0	3 3 0	4 12 10
15th November	.	.	.	4 2 0	4 3 0	3 8 0	4 2 0	3 9 0	4 10 0	3 0 0	4 9 7
30th "	.	.	.	4 2 0	4 3 0	3 8 0	3 15 0	3 9 0	4 10 0	3 0 0	4 9 7
15th December	.	.	.	4 2 0	4 3 0	3 8 0	4 2 0	3 9 0	4 10 0	3 0 0	4 9 7
31st "	.	.	.	4 2 0	4 3 0	3 4 0	4 2 0	3 9 0	4 8 0	2 12 10	4 9 7
January to December 1835.											
15th January	.	.	.	4 2 0	4 5 0	3 4 0	4 2 0	3 9 0	4 8 0	3 0 0	4 9 7
31st "	.	.	.	4 2 0	4 8 0	3 6 0	4 2 0	3 10 0	4 9 0	3 0 6	4 12 10
15th February	.	.	.	4 5 0	4 9 0	3 9 0	4 5 0	3 14 0	5 1 0	3 3 0	5 0 0
28th "	.	.	.	4 5 0	4 9 0	3 9 0	4 5 0	3 14 0	5 1 0	3 3 0	5 0 0
15th March	.	.	.	4 5 0	4 9 0	3 9 0	4 5 0	3 15 0	5 1 0	3 6 0	5 0 0
31st "	.	.	.	4 5 0	4 9 0	3 9 0	4 5 0	3 15 0	5 1 0	3 3 3	5 0 0
15th April	.	.	.	4 5 0	4 8 0	3 9 0	4 5 0	3 14 0	4 14 0	3 3 3	4 9 7
30th "	.	.	.	4 2 0	4 8 0	3 9 0	4 5 0	3 14 0	4 14 0	3 3 0	4 9 7
15th May	.	.	.	4 2 0	4 5 0	3 6 0	4 5 0	3 9 0	4 14 0	3 3 0	4 9 7
31st "	.	.	.	4 3 0	4 5 0	3 6 0	4 5 0	3 9 0	4 14 0	3 3 0	4 9 7
15th June	.	.	.	4 2 0	4 5 0	3 6 0	4 5 0	3 9 0	4 11 0	3 0 0	4 9 7
30th "	.	.	.	4 2 0	4 5 0	3 6 0	4 5 0	3 9 0	4 11 0	3 0 0	4 9 7

ANNEXURE C—contd.

Statement showing the rates of Charka Silk (per pound)—contd.

Fortnight, to which the information relates.	Kempanaballi.		Closepet, Channapatna, Manchanabele, Muduvadi.		Sidlaghatta, Chickballapur, Kyalanur, Chinnasandra, and Venkatagirikote.		Agrahar and Kollegal.	
	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
January to December 1935—contd.								
15th July	4 2 0	4 5 0	3 6 0	4 5 0	3 9 0	4 11 0	3 0 0	4 9 7
31st "	4 2 0	4 5 0	3 6 0	4 5 0	3 9 0	4 11 0	3 0 0	4 9 7
15th August	4 2 0	4 5 0	3 6 0	4 2 0	3 9 0	4 11 0	3 0 0	4 9 7
31st "	4 2 0	4 5 0	3 6 0	4 2 0	3 9 0	4 11 0	3 0 0	4 9 7
15th September	4 0 0	4 4 0	3 5 0	3 15 0	3 9 0	4 8 0	3 0 0	4 9 7
30th "	4 2 0	4 8 0	3 9 0	4 0 0	3 9 0	4 11 0	3 0 0	4 9 7
15th October	4 5 0	4 11 0	3 9 0	4 5 0	3 12 0	4 14 0	3 0 0	4 9 7
31st "	4 8 0	4 14 0	3 15 0	4 8 0	4 2 0	5 1 0	3 6 0	5 0 0
15th November	4 11 0	5 1 0	4 2 0	4 14 0	4 2 0	5 7 0	3 6 5	5 6 5
30th "	4 8 0	4 11 0	3 12 0	4 8 0	3 14 0	6 4 0	3 3 0	5 0 0
15th December	4 5 0	4 8 0	3 6 0	4 5 0	3 12 0	5 0 0	3 3 0	4 12 10
31st "	4 5 0	4 8 0	3 6 0	4 6 0	3 12 0	5 0 0	3 0 0	4 9 7

January to December 1936.											
15th January	.	.	.	4 4 0	4 8 0	3 6 0	4 5 0	3 9 0	4 14 0	3 0 0	4 9 7
31st "	.	.	.	4 2 0	4 8 0	3 6 0	4 5 0	3 9 0	4 14 0	3 0 0	4 9 7
15th February	.	.	.	4 2 0	4 8 0	3 6 0	4 5 0	3 9 0	4 14 0	3 0 0	4 9 7
29th "	.	.	.	4 2 0	4 5 0	3 6 0	4 4 0	3 9 0	4 14 0	3 0 0	4 9 7
15th March	.	.	.	4 2 0	4 5 0	3 6 0	4 4 0	3 9 0	4 14 0	3 0 0	4 9 7
31st "	.	.	.	4 2 0	4 5 0	3 6 0	4 4 0	3 9 0	4 14 0	3 0 0	4 9 7
15th April	.	.	.	4 2 0	4 5 0	3 6 0	4 4 0	3 9 0	4 11 0	3 0 0	4 9 7
30th "	.	.	.	3 15 0	4 4 0	3 6 0	4 2 0	3 6 0	4 8 0	3 0 0	4 9 7
5th May	.	.	.	3 15 0	4 4 0	3 6 0	4 2 0	3 6 0	4 8 0	3 0 0	4 9 7
31st "	.	.	.	3 15 0	4 4 0	3 6 0	4 2 0	3 6 0	4 3 0	2 14 9	4 9 7
15th June	.	.	.	3 15 0	4 2 0	3 6 0	3 15 0	3 6 0	4 8 0	2 14 9	4 9 7
30th "	.	.	.	3 15 0	4 2 0	3 6 0	3 15 0	3 6 0	4 8 0	2 14 9	4 9 7
15th July	.	.	.	3 15 0	4 2 0	3 6 0	3 15 0	3 6 0	4 8 0	2 14 5	4 6 5
31st "	.	.	.	3 15 0	4 2 0	3 6 0	3 15 0	3 6 0	4 8 0	2 13 1	4 6 5
15th August	.	.	.	3 15 0	4 2 0	3 6 0	3 15 0	3 6 0	4 8 0	2 13 1	4 6 5
31st "	.	.	.	3 15 0	4 2 0	3 6 0	3 15 0	3 6 0	4 8 0	2 13 1	4 6 5
15th September	.	.	.	3 15 0	4 2 0	3 6 0	3 15 0	3 6 0	4 8 0	2 14 5	4 6 5
30th "	.	.	.	4 2 0	4 5 0	3 6 0	4 0 0	3 6 0	4 10 0	2 14 5	4 6 5

ANNEXURE C—contd.

Statement showing the rates of Charka Silk (per pound)—contd.

Portnight, to which the information relates.	Kempnaballi.		Closepet, Channarayana, Manchanaibela, Moduvadi.		Siddaghatta, Chickballapur, Kyalanur, Chinnasandra, and Venkatagirikote.		Agrahar and Kollegal.	
	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
January to December 1936—contd.								
15th October	4 2 0	4 5 0	3 6 0	4 0 0	3 6 0	4 11 0	3 0 0	4 6 5
31st "	4 2 0	4 8 0	3 6 0	4 2 0	3 6 0	4 11 0	3 0 0	4 6 5
15th November	4 5 0	4 8 0	3 8 0	4 2 0	3 1 0	4 14 0	3 0 0	4 6 5
30th "	4 5 0	4 8 0	3 8 0	4 4 0	3 8 0	4 14 0	3 0 0	4 6 5
15th December	5 1 0	5 7 0	3 15 0	5 1 0	4 5 0	6 0 0	3 3 3	5 3 3
31st "	4 11 0	5 1 0	3 9 0	4 14 0	4 5 0	6 0 0	3 3 3	5 3 3
January to December 1937.								
15th January	4 14 0	5 4 0	3 12 0	5 1 0	4 3 0	6 6 0	3 3 3	5 3 3
31st "	5 4 0	5 10 0	4 8 0	5 1 0	4 5 0	6 6 0	3 9 7	5 9 7
15th February	5 7 0	5 13 0	4 14 0	5 4 0	4 8 0	6 6 0	3 15 0	5 9 7
28th "	5 12 0	6 0 0	5 0 0	5 7 0	4 1 0	6 6 6	3 15 0	5 9 7
15th March	5 12 0	6 0 0	4 14 0	5 7 0	4 13 0	6 6 0	3 15 0	5 9 7

31st "	.	.	.	5 10 0	6 0 0	4 14 0	5 7 0	4 13 0	6 3 0	3 15 0	5 9 7
15th April	.	.	.	5 11 0	6 0 0	4 14 0	5 7 0	5 1 0	6 3 0	4 2 0	6 0 0
30th "	.	.	.	5 10 0	5 13 0	4 14 0	5 5 0	4 14 0	6 3 0	4 2 0	6 0 0
15th May	.	.	.	5 4 0	5 7 0	4 8 0	5 1 0	4 8 0	6 0 0	3 9 7	5 9 7
31st "	.	.	.	4 14 0	5 1 0	3 12 0	4 11 0	4 2 0	5 13 0	3 6 5	5 0 0
15th June	.	.	.	4 11 0	4 14 0	3 9 0	4 5 0	3 12 0	5 10 0	3 6 0	4 12 10
30th "	.	.	.	4 11 0	4 14 0	3 15 0	4 8 0	3 15 0	5 10 0	3 7 0	5 3 3
15th July	.	.	.	4 13 0	5 10 0	4 2 0	4 11 0	4 2 0	5 10 0	3 9 7	5 3 3
31st "	.	.	.	4 13 0	5 0 0	3 15 0	4 8 0	3 14 0	5 10 0	3 9 7	5 3 3
15th August	.	.	.	4 13 0	5 1 0	3 15 0	4 8 0	4 0 0	5 10 0	3 11 0	5 3 3
31st "	.	.	.	5 1 0	5 4 0	4 5 0	4 11 0	4 5 0	6 0 0	3 15 0	5 9 7
15th September.	.	.	.	5 1 0	5 4 0	4 8 0	4 14 0	4 11 0	6 0 0	4 0 0	5 9 7
30th "	.	.	.	5 2 0	5 5 0	4 8 0	5 0 0	4 11 0	6 0 0	4 0 0	5 9 7
15th October	.	.	.	5 2 0	5 5 0	4 8 0	5 0 0	4 11 0	6 0 0	4 0 0	5 9 7
31st "	.	.	.	4 11 0	4 14 0	3 15 0	4 10 0	3 15 0	5 10 0	3 9 7	4 12 10
15th November	.	.	.	4 11 0	4 14 0	3 15 0	4 10 0	3 15 0	5 10 0	3 9 7	4 12 10
30th "	.	.	.	4 11 0	4 14 0	3 15 0	4 10 0	3 15 0	5 10 0	3 9 7	4 12 10
15th December	.	.	.	4 11 0	4 14 0	3 14 0	4 8 0	3 15 0	5 10 0	3 9 7	4 12 10
31st "	.	.	.	4 11 0	4 14 0	3 12 0	4 7 0	3 13 0	5 10 0	3 6 5	4 12 10

ANNEXURE C—concd.

Statement showing the rates of *Charka Silk* (per pound)—concd.

Fortnight, to which the information relates.	Kemparahalli.		Closepet, Channarayana, Manohanahele, Mudavadi.		Siddaghatta, Chichkalapur, Kyalanpur, Chinnasandra, and Venkatasagittote.		Agraahar and Kollegal.	
	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
January to 15th June 1936.								
15th January	4 8 0	4 11 0	3 12 0	4 7 0	3 13 0	5 10 0	3 3 3	4 6 5
31st "	4 8 0	4 11 0	3 12 0	4 7 0	3 13 0	5 10 0	3 3 3	4 6 5
15th February	4 11 0	4 14 0	3 12 0	4 7 0	3 13 0	5 7 0	3 3 3	4 6 5
28th "	4 11 0	4 14 0	3 9 0	4 5 0	3 12 0	5 7 0	3 3 3	4 6 5
15th March	4 8 0	4 11 0	3 9 0	4 2 0	3 10 0	5 4 0	3 4 0	4 6 5
21st "	4 8 0	4 11 0	3 9 0	4 1 0	3 10 0	5 4 0	3 3 0	4 6 5
15th April	4 8 0	4 11 0	3 8 0	4 1 0	3 11 0	5 4 0	3 3 0	4 6 5
30th "	4 8 0	4 11 0	3 8 0	4 1 0	3 7 6	5 4 0	3 3 0	4 9 7
15th May	4 5 0	4 11 0	3 8 0	4 1 0	3 7 6	5 4 0	3 3 0	4 9 7
31st "	4 5 0	4 11 0	3 8 0	4 1 0	3 7 6	5 4 0	3 3 0	4 9 7
15th June	4 5 0	4 8 0	3 6 0	3 12 0	3 7 0	4 14 0	3 0 0	4 9 7

ANNEXURE D.

Statement showing the rate of Reeling Cocoons per pound for each fortnight from 1st January, 1933, up-to-date.

Fortnight of each month.	Chennapatna.				Siddaghatta.				Mugur.			
	C. B. Cocoons.		Mysore Cocoons.		C. B. Cocoons.		Mysore Cocoons.		C. B. Cocoons.		Mysore Cocoons.	
	Maximum Per lb.	Minimum Per lb.	Maximum Per lb.	Minimum Per lb.	Maximum Per lb.	Minimum Per lb.	Maximum Per lb.	Minimum Per lb.	Maximum Per lb.	Minimum Per lb.	Maximum Per lb.	Minimum Per lb.
	As. p.	As. p.	As. p.	As. p.	As. p.	As. p.	As. p.	As. p.	As. p.	As. p.	As. p.	As. p.
January to December 1933.												
1st January . . .	5 4	..	4 8	As. p. 4 10	..	..	..	..	..	..	..	..
2nd " . . .	5 4	5 2	5 0	4 10	..	..	..	..	..	..	..	..
1st February . . .	5 4	5 2	4 10	4 8	..	..	..	..	..	..	..	..
2nd " . . .	5 4	5 2	4 10	4 8	..	..	..	..	..	..	..	..
1st March . . .	..	..	..	..	..	..	..	..	..	..	..	..
2nd " . . .	5 0	4 8	4 2	4 0	..	..	..	..	..	..	..	..
1st April . . .	5 0	4 8	4 2	4 0	..	..	..	..	..	..	..	..
2nd " . . .	4 8	4 7	3 10	3 9	..	..	..	..	..	..	..	..
1st May . . .	4 6	4 2	3 10	3 8	..	..	..	..	..	..	..	..

ANNEXURE D—contd.

Statement showing the rate of Reeling Cocoons per pound for each fortnight from 1st January, 1933, up-to-date—contd.

Fortnight of each month.	Chennapatna.				Sidlaghatta.				Mugur.			
	C. B. Cocoons.		Mysore Cocoons.		C. B. Cocoons.		Mysore Cocoons.		C. B. Cocoons.		Mysore Cocoons.	
	Maximum Per lb.	Minimum Per lb.	Maximum Per lb.	Minimum Per lb.	Maximum Per lb.	Minimum Per lb.	Maximum Per lb.	Minimum Per lb.	Maximum Per lb.	Minimum Per lb.	Maximum Per lb.	Minimum Per lb.
January to December 1933—contd.	As. p.	As. p.	As. p.	As. p.	As. p.	As. p.	As. p.	As. p.	As. p.	As. p.	As. p.	As. p.
2nd May . . .	4 8	4 2	4 0	3 8	..	..	..	..	..	..	..	..
1st June . . .	4 4	4 0	3 6	3 4	..	..	..	..	..	..	..	..
2nd " . . .	4 6	4 4	4 0	3 10	..	..	4 6	4 0	..	..	..	..
1st July . . .	4 3	4 0	3 10	3 8	..	..	4 2	4 0	..	..	..	..
2nd " . . .	4 4	4 2	3 10	3 8	..	..	4 8	4 3	..	..	..	..
1st August . . .	4 4	4 2	3 10	3 4	..	..	..	..	..	..	..	..
2nd " . . .	4 4	4 0	3 10	3 4	..	..	4 3	4 0	..	..	..	..
1st September . . .	3 10	3 8	3 6	3 4	..	..	..	..	..	..	..	..
2nd " . . .	3 10	3 8	3 6	3 4	..	..	3 4	2 9	..	..	..	..

ANNEXURE D—contd.

Statement showing the rate of Reeling Cocoons per pound for each fortnight from 1st January, 1933, up-to-date—contd.

Fortnight of each month.	Chennai; atma.				Siddaghatta.				Mugur.			
	C. B. Cocoons.		Mysore Cocoons.		C. B. Cocoons.		Mysore Cocoons.		C. B. Cocoons.		Mysore Cocoons.	
	Maximum Per lb.	Minimum Per lb.	Maximum Per lb.	Minimum Per lb.	Maximum Per lb.	Minimum Per lb.	Maximum Per lb.	Minimum Per lb.	Maximum Per lb.	Minimum Per lb.	Maximum Per lb.	Minimum Per lb.
January to December 1934—contd.												
30th June . . .	3 10	3 4	3 4	3 2	As. p.	As. p.	As. p.	As. p.	As. p.	As. p.	As. p.	As. p.
15th July . . .	3 10	3 4	3 4	3 2	..	..	..	..	..	..	..	..
31st " . . .	..	..	..	..	..	..	..	..	..	..	..	..
15th August . . .	4 0	3 6	3 6	3 0	..	..	..	..	..	..	..	..
31st " . . .	4 0	3 6	3 6	3 0	..	..	..	..	..	..	..	..
15th September . . .	4 6	4 3	3 8	3 4	..	..	..	..	..	..	..	..
30th " . . .	4 8	4 0	4 0	3 8	..	..	..	..	..	..	..	..
15th October . . .	4 0	4 0	4 0	3 8	..	..	..	..	..	..	..	..
31st " . . .	4 0	4 6	4 3	4 0	..	..	..	..	..	..	..	..

ANNEXURE D—contd.

Statement showing the rate of Reeling Cocoons per pound for each fortnight from 1st January, 1933, up-to-date—contd.

Fortnight of each month.	Chennapatna.				Siddlaghatta.				Mugur.			
	C. B. Cocoons.		Mysore Cocoons.		C. B. Cocoons.		Mysore Cocoons.		C. B. Cocoons.		Mysore Cocoons.	
	Maximum Per lb.	Minimum Per lb.	Maximum Per lb.	Minimum Per lb.	Maximum Per lb.	Minimum Per lb.	Maximum Per lb.	Minimum Per lb.	Maximum Per lb.	Minimum Per lb.	Maximum Per lb.	Minimum Per lb.
	As. p.	As. p.	As. p.	As. p.	As. p.	As. p.	As. p.	As. p.	As. p.	As. p.	As. p.	As. p.
January to December 1935—contd.												
31st July . . .	5 0	4 6	4 6	4 3	..	..	..	..	..	..	..	..
15th August . .	5 0	4 6	4 6	4 3	..	..	..	..	..	..	..	..
31st " . . .	4 4	4 0	4 0	3 8	..	..	..	..	..	..	..	..
15th September .	4 2	3 10	3 8	3 4	..	..	..	..	..	..	..	..
30th " . . .	4 0	3 9	3 6	3 4	5 0	4 5	..	..	..	..	..	..
15th October . .	4 0	3 9	3 6	3 4	..	..	..	..	..	..	..	..
31st " . . .	4 6	4 0	4 0	3 6	..	..	..	..	..	..	..	..
15th November .	4 6	4 0	4 0	3 8	..	..	..	..	..	..	..	..
20th " . . .	4 3	4 0	4 0	3 8	..	..	..	..	..	..	..	..

ANNEXURE D—contd.

Statement showing the rate of Reeling Cocoons per pound for each fortnight from 1st January, 1933, up-to-date—contd.

Fortnight of each month.	Channarayana.				Sidlaghatta.				Mugur.			
	C. B. Cocoons.		Mysore Cocoons.		C. B. Cocoons.		Mysore Cocoons.		C. B. Cocoons.		Mysore Cocoons.	
	Maximum Per lb.	Minimum Per lb.	Maximum Per lb.	Minimum Per lb.	Maximum Per lb.	Minimum Per lb.	Maximum Per lb.	Minimum Per lb.	Maximum Per lb.	Minimum Per lb.	Maximum Per lb.	Minimum Per lb.
January to December 1936—contd.												
31st August .	3 7	..	3 0	As. p.	4 3	4 0	3 9	3 6	..	..	..	..
15th September .	4 0	3 7	3 10	3 3	..	..	..	..	..	..	..	..
30th " .	3 9	3 3	3 8	3 0	..	..	..	..	..	..	..	..
15th October .	4 0	3 4	3 8	3 0	..	..	..	..	..	..	..	..
31st " .	3 10	3 3	3 8	3 0	..	..	..	..	..	..	..	..
15th November .	3 10	3 3	3 8	3 0	..	..	..	..	..	..	..	..
30th " .	3 10	3 6	3 8	3 4	..	..	..	..	..	..	..	..
15th December .	4 6	..	4 3	3 8	..	..	..	..	..	..	..	..
31st " .	4 8	4 4	4 4	4 0	..	..	..	..	..	..	..	..

ANNEXURE D—conold.

Statement showing the rate of Reeling Cocoons per pound for each fortnight from 1st January, 1933, up-to-date—conold.

Fortnight of each month.	Chennasaptna.				Sidlaghatta.				Mangur.			
	C. B. Cocoons.		Mysore Cocoons.		C. B. Cocoons.		Mysore Cocoons.		C. B. Cocoons.		Mysore Cocoons.	
	Maximum Per lb.	Minimum Per lb.	Maximum Per lb.	Minimum Per lb.	Maximum Per lb.	Minimum Per lb.	Maximum Per lb.	Minimum Per lb.	Maximum Per lb.	Minimum Per lb.	Maximum Per lb.	Minimum Per lb.
	As. p.	As. p.	As. p.	As. p.	As. p.	As. p.	As. p.	As. p.	As. p.	As. p.	As. p.	As. p.
January to December 1937—conold.												
15th October . . .	4 6	4 4	4 4	4 0	5 9	5 3	5 0	4 9	6 1	5 9	5 5	5 3
31st " . . .	4 6	4 4	4 2	4 0	6 0	5 6	5 6	5 0	5 1	4 10	4 10	4 6
15th November . . .	4 8	4 4	4 4	4 0	5 9	5 6	5 3	5 0	4 11	4 9	4 10	4 6
30th " . . .	4 10	4 6	4 6	4 0	5 3	5 0	5 0	4 9	5 1	4 10	4 6	4 2
15th December . . .	4 10	4 6	4 4	4 0	5 6	5 0	5 0	4 6	4 8	4 4	4 6	4 2
31st " . . .	4 10	4 6	4 2	4 0	..	..	..	..	4 6	4 4	4 4	4 2

January 1938 to Up-to-date.													
15th January . .	4 6	4 4	4 4	4 0	5 9	5 6	5 3	5 0	5 4	4 10	5 1	4 10	4 10
31st " . .	4 6	4 4	4 4	4 0	5 9	5 6	5 3	5 0	4 10	4 6	4 8	4 6	4 4
15th February . .	4 7	4 5	4 4	4 0	5 10	5 0	4 6	4 3	4 10	4 6	4 8	4 6	4 4
28th " . .	4 6	4 4	4 4	4 0	5 6	5 0	5 0	4 9	4 8	4 6	4 6	4 6	4 4
15th March . .	4 6	4 4	4 4	4 0	5 3	5 0	5 0	4 9	4 8	4 6	4 6	4 6	4 4
31st " . .	4 6	4 4	4 4	4 0	5 6	5 0	5 0	4 6	5 0	4 8	4 8	4 8	4 6
15th April . .	4 6	4 4	4 4	4 0	5 3	5 0	4 9	4 6	5 0	4 10	4 8	4 10	4 6
30th " . .	4 4	4 0	4 0	3 10	5 3	5 0	4 9	4 6	4 10	4 8	4 8	4 8	4 6
15th May . .	4 2	4 0	4 0	3 10	5 3	4 9	4 9	4 6	4 10	4 6	4 8	4 6	4 6
31st " . .	4 4	4 2	4 0	3 10	5 3	5 0	4 9	4 6	4 8	4 6	4 6	4 6	4 2
15th June 1938 . .	4 6	4 4	4 4	4 0	4 9	4 6	4 4	4 0	4 8	4 4	4 4	4 4	4 0

A NOTE ON THE SERICULTURAL INDUSTRY AND ITS ORGANISATION IN MYSORE.

(Revised and brought up-to-date.)

EXTENT AND DISTRIBUTION OF THE INDUSTRY.

Mysore is admirably fitted by soil, climate and local conditions for silk production. The industry is at present practised over about a third of the area of the State, to the south of a line joining Chintamani, Sidlaghatta, Chikballapur, Kunigal, Mandya and Nanjangud. The sericulture of Kollegal Taluk (Madras Presidency) is a continuation and part of the Mysore system. There is practically no part of the State where climatic conditions do not admit of extension of the industry; the only limiting factor seems to be economic. During 1926-27, the total area under mulberry was about 53,000 acres, the value of silk produced amounted to about a crore and a quarter of rupees and the industry in its various branches supported about two lakhs of families. Since that year, there has been a gradual decrease in the area under mulberry. The area, which was about 36,000 acres during 1932-33, came down to about 25,000 acres at the end of 1936-37. Partly due to the shrinkage in the area under mulberry and partly due to fall in the price of silk, the value of silk produced has now gone down considerably.

POSITION OF SERICULTURE IN MYSORE INDUSTRIES.

The silk industry of Mysore has been in existence for over a century and is practised in the districts of Bangalore, Mysore, Tumkur and Kolar in about 2,000 villages out of about 19,000 villages in the State. Sericulture is the largest and most important cottage industry in the State and fits in admirably with agriculture which is the main occupation. It is practised by small agriculturists as a subsidiary occupation, and affords profitable and steady employment throughout the year for women and children at home and gives occupation to the raiyats during agricultural off-seasons. A well established mulberry garden withstands drought better than field crops, and in bad years, rearing silk-worms has often saved entire taluks from acute general distress consequent on insufficient rainfall. This industry undoubtedly gives economic stamina to the population practising it. The returns from the silk industry are absolutely necessary for the subsistence of a large portion of the population in the State. Cultivation of mulberry, rearing of silk-worms, reeling of silk, marketing of silk, and weaving of silk give occupation to a large number of families. In addition to the people directly engaged in the industry, a large number of families find employment in such subsidiary operations connected with sericulture as plucking of leaves, digging, weeding, pruning and manufacture of appliances in sericultural villages. It is difficult to make an accurate estimate of the number of families indirectly benefited by this industry, but it may be safely said that in sericultural villages there is hardly any family which does not contribute to the industry at one stage or another and the result is that sericultural villages are ordinarily more prosperous and show more of alertness and life than others.

HISTORY OF SERICULTURE IN MYSORE.

In spite of obvious advantages, the story of Mysore Sericulture is one marked by vicissitudes. In 1866, it had almost died out owing to disease or deterioration of silk-worms, and was temporarily restored by the importation of Japanese seed. The root causes of decay, however, remained untouched, and one or two bad seasons upset this lightly built restoration. But the vitality due to favourable natural conditions enabled the industry to start with a new lease of life about 1890. It is significant that in this revival the imported worm had disappeared and the Mysore worm emerged triumphant. Once again the industry declined, till in 1914-15, it reached

its lowest point, with an acreage under mulberry of not much over 25,000. As a result of vigorous State action, the decline had been arrested, and the growth natural to a healthy industry had been restored during two past 20 years.

But the decline in the area under mulberry, in the production and export of raw silk (Annexure I) indicate the extent to which Mysore Sericulture has been affected by the competition of raw silk, etc., imported from foreign countries. Since 1926-27, about 28,000 acres have gone out of mulberry and Mysore silk has lost its market in several of the most important weaving centres in India. The imports of raw silk, etc., from foreign countries have also encroached upon the domestic market in Mysore (Annexure II).

NATURE OF THE INDUSTRY.

The Sericultural Industry properly so called comprises all operations from the cultivation of mulberry to the marketing of raw silk. These operations may be grouped as follows:—

- (1) Mulberry growing and silk-worm rearing.
- (2) Silk Reeling.
- (3) Trade.

The rearing of worms is carried on side by side with the cultivation of mulberry. The rearer as a rule grows his own mulberry, and it is rarely that mulberry is grown for sale, though occasionally surplus leaves or surplus worms are sold to neighbours who require them. Generally, mulberry is raised over small plots of land ranging from half or three-fourths of an acre to ten acres. It is grown both as a dry crop and as an irrigated crop. The principal capital investment required in sericulture is the mulberry garden; the rearer's other capital requirements are few. His house is his place of work and his wife and children furnish the labour required. This is what makes sericulture a perfect home industry. It may sometimes happen that he requires some money and this he usually borrows for short terms from the reeler who is the prospective purchaser of cocoons. It is, however, rarely that the money is required for sericulture. It is more often wanted for other purposes, social or agricultural; the agriculturist is frequently in need of cash between harvest and harvest and sericulture only gives him credit-worthiness. The Sericultural Co-operative Societies also assist him to some extent. As soon as the cocoons are ready, the rearer sells the same to the dealer in cocoons and receives the amount due to him less the advances, if any, received from the dealer. In normal times, when the trade is brisk, he usually gets ready money against the delivery of the cocoons. When trade is dull, it is sometimes necessary for him to allow time to the reeler to reel the cocoons and sell the silk.

The reeling establishments are located all over the silk tract. The smallest unit is a Charkha, consisting of one basin and one reel, and a large number of establishments are of this size; but there are also a fair number of larger establishments consisting of anything from 5 to 30 reels. The reeler sometimes makes his own arrangements with the rearer of worms for the supply of green cocoons, but the usual practice is to purchase through a middleman or broker who receives a commission of about two annas per 12 lbs. and the reeler has also to meet the cost of transportation of the cocoons to his place. This varies according to the distance to be covered, from one anna to two annas per 12 lbs. The silk reeled off the cocoons is converted into hanks and disposed of to the merchants either locally or in distant centres of trade. The reeler generally gets advance from the merchants dealing in raw silk and on these advances, he pays interest ranging from 8 to 10 per cent. He has to give a commission of one and a half annas per pound. When the trade is brisk or if the merchants have already booked forward orders, the reeler gets cash against

the delivery of raw silk. When the demand is slack or if the merchant has not got any orders on hand, the reeler will have to wait till the raw silk deposited by him with the merchant has been sold. When it is finally sold, the amount realised, less the advances and interest accruing on it, is adjusted to his account.

The owner of the silk Koti is partly a merchant and partly a broker. The capital invested by him is family capital supplemented with capital borrowed from a private banker or a joint stock bank. The merchant gets raw silk from the reelers in the interior. He makes advances to the reelers and charges them interest on such advances ranging from 8 to 10 per cent. He gets a commission of one and a half annas per pound from the reelers and an equal amount from his customers in different places. He sends out silk in bales of 70 lbs. on an average. Time given to the buyer depends upon his financial standing. Generally, the merchant insists upon an early payment. Interest is charged in some cases, the rate varying from 10 to 12 per cent.

Mulberry Cultivation.—Three varieties of mulberry are grown in Mysore, viz., Bodi Kaddi, Yennerangina Kaddi, and Sultani Kaddi. The last named variety which yields very small leaves and which requires heavy manuring has practically disappeared. The other two varieties are grown all over the silk area. Several new varieties have been introduced by the Sericultural Department with promising results and the best of them will ultimately be distributed for wide propagation.

Mulberry is a deep-rooted plant and yields leaf for over 15 years when once it is planted. It is generally propagated by means of cuttings and is grown in the form of bushes. The initial expenditure for planting a new mulberry garden is from Rs. 75 to Rs. 100 per acre. Mulberry is grown both on dry land and on irrigated land. In the case of dry cultivation, the plant depends upon rainfall for water-supply. Irrigated gardens get their water supply either from tanks, shallow wells along river banks or deep wells. The plants are pruned once a year. The cultural operations comprise digging, manuring, weeding, etc., and have to be attended to at fixed intervals. Generally, gardens are given a digging after harvesting a crop of leaves. Manure is applied either once or twice a year. Farm yard manure, silk-worm litter and artificial manures such as ammonium sulphate and groundnut oil cakes are used.

The first crop of leaves after pruning is plentiful and the leaves are of good quality and size. These leaves would be ready for harvesting in about two or two and a half months after pruning. As the worms take one month from start to finish, the leaves would be completely harvested in three or three and a half months after pruning. The next crop of leaves will be ready for harvest in about a month. Generally, four or five crops of leaves are harvested from the rainfed gardens and six to seven crops from irrigated gardens. The size and yield of leaves would diminish after each harvest. The irrigated gardens yield leaf during summer months also. These gardens have to be protected against the depredations of cattle. The rainfed gardens do not yield any leaves during summer.

The system of planting mulberry gardens and of harvesting leaves varies with each locality. In Kolar and parts of Bangalore District, the mulberry cuttings are planted close together in lines one foot apart to prevent wastage of water and the plants are cut down to the root at each harvest. In other parts, the mulberry is planted in pits nine inches apart and the rows are about two feet apart. Only the leaves are plucked off the twigs at each harvest and the plants are pruned to the ground once a year.

Mysore Silk-worm.—Mysore has a distinct race of silk-worms. These worms are multivoltine, feed on mulberry leaf and produce greenish cocoons, which yield a beautiful lustrous silk of excellent quality. The silk-worm reared in Mysore is indigenous to Mysore. Of late, hybrids between Pure Mysore and Pure Japanese or Chinese races are also being reared by the

sericulturists; but these form about 25 per cent. of the total seed supply. Though hybrid seed is 40 per cent. more profitable to rear than the pure Mysore seed, yet since the manufacture of such seed requires great skill and care and special equipment, only Government Grainages and selected aided grainages at present issue it, and it will be sometime before the work can be transferred entirely to aided or private grainages. This is one of the potential directions in which silk production could be increased and the cost reduced; but it necessarily takes some time. The cocoons produced by these hybrids are used for reeling only. The Pure Chinese and Japanese races used for the preparation of hybrid layings are Univoltines and Bivoltines. These races are bred pure by the Sericultural Department for seed purposes and no deterioration has been noticed in the stock after several years of continuous rearing but small quantities of fresh seed are also imported from time to time for reinforcing and replenishing the stock.

Rearing.—The raiyat or the rearer purchases seed cocoons or disease-free layings. It takes about ten days for the eggs to hatch and during this period, they are kept at the ordinary temperature of the rearing house, care being taken to protect them from the attacks of lizards, ants, etc. The young worms, so soon as they hatch out, are fed with tender mulberry leaves cut into very fine pieces. During the first ten days they are fed once in two hours and require very careful attention. By the end of this period, they will have grown sufficiently to be fed with slightly more mature leaves cut to a larger size. In about thirty days from the date of hatching, the Mysore worm will be ready to spin its cocoon. No feeding is necessary at this stage. The ripe worms are mounted on "Chandrikes" or spinning trays where each worm builds a cocoon around itself. Three days later, the cocoons are removed from the "Chandrikes" and are ready for sale. The hybrid worm forms a cocoon in about 25 days after hatching.

During the larval stage, the worm casts off its skin four times, growing bigger and bigger after each moult. As worms grow bigger, they require larger space and over-crowding has to be avoided. Bamboo trays are used for rearing the worms and the trays are kept one above the other on stands. It is very necessary that the rearing room should have sufficient light and ventilation. The worms should be protected against the attacks of ants, lizards, rats, etc. During the rearing, worms develop so rapidly that young worms which occupy one tray will occupy 20 trays when they grow to maturity. After the fourth moult, the Mysore worms eat for ten days and the hybrid worms eat for about five days and during this period, they consume five times the quantity of leaf consumed during the preceding 20 days. Entire leaves may be fed to the worms after the fourth moult.

Crops.—Roughly one acre of rainfed mulberry garden yields from 4,000 lbs. to 6,000 lbs. of leaves in a year and the cost of cultivation varies from Rs. 50 to Rs. 84 per year. An acre of irrigated garden yields 10 to 12 thousand pounds of leaves per year, the yield depending upon the quantity of manures applied and the cultural operations carried on. The cost of cultivation in this case varies from Rs. 130 to Rs. 200 per annum.

Four to five broods are reared in a year from rainfed gardens and six to seven broods from irrigated gardens.

Generally, about 140 Mysore layings weigh one ounce. These produce about 27,500 cocoons or 50 lbs. of cocoons. One ounce of hybrid seed produces about 70 lbs. of cocoons.

About 97 per cent. of the cocoons produced in the State are used for reeling and three per cent. for seed purposes. The seed cocoons required by the Kollegal Taluk of the Madras Presidency are supplied from the Mysore area.

Generally the members of the family attend to the plucking of leaves, till the worms pass the fourth moult, as the quantity of leaves required up to that stage is small. The feeding of worms in all the ages is attended to by the members of the family in addition to their household duties.

A portion of the dwelling house is utilised for rearing the worms. The capital investment in the business is very little. The rearer has to find ready money only for the purchase of seed.

The excess, if any, in the price realised over the cost of production of cocoons constitutes the remuneration for labours of the family.

Reeling.—The cocoons are not generally reeled by the rearer himself but are sold to professional reelers who reel the silk and sell the same in silk centres.

In Mysore the following kinds of reeling machines are used for producing raw silk:—

- (1) Indigenous country charkha.
- (2) French and Italian Filature Basin.

The charkhas are worked entirely by hand. In the filatures the reels are run by power, but the actual reeling work in all the machines is done by hand.

A portion varying from 30 to 40 per cent. of the raw silk produced in the State is used up locally. The balance of the raw silk is sold outside the State, but still in India. With the establishment of the Mysore Spun Silk Mills at Channarayana, the bulk of the silk waste produced locally may be expected to be consumed by that concern.

Market.—The principal centres of trade in raw silk are Bangalore, Channarayana, Siddaghatta and Chikballapur. The bulk of the trade passes through Bangalore City, where there are a number of silk "Kotis" which specialise in trade in raw silk. The owner of the "Koti" gets raw silk from the reelers in the interior. The reeler deposits the raw silk manufactured or collected by him with the owner of the "Koti" and obtains an advance from him amounting from 50 to 75 per cent. of the total value of raw silk so deposited. On this advance, interest is charged at rates varying from 8 to 10 per cent. A commission of one anna per seer of 26½ tolas is charged by the "Koti" owner to the seller, i.e., the reeler. Sometimes large customers from consuming centres also employ brokers to assist them in getting silk from the silk "Kotis". For the services rendered by the brokers, a commission of two to four annas per seer called "Gootun" is charged. The brokers also arrange, if required, for the purchase of silk on credit from the "Kotis". There are five such brokers in Bangalore, and their services are availed of largely by customers from Gadag, Huhli, Dharwar, Bagalkote, Shapur, Bolgaum, Guladagudda, Bettigeri, Kanchi and Salem.

The "Koti" owner sends quotations to customers in different centres of trade outside the State. As soon as an order is received a consignment is made and forwarded to the purchaser. The silk is sent out in bales of 70 lbs. or 105 to 108 seers of 26½ tolas each. The purchaser has to give a commission of one anna per seer. When credit is allowed, he is charged interest at the rate of 10 to 12 per cent. from the date of consignment. Generally, the "Koti" owners realise their dues as early as practicable. Money is received by means of insured letters. So soon as the amount is received, it is credited to the account of the reeler and the advance made to him is adjusted out of it.

STATE ACTION.

The efforts made to protect and develop sericulture are a measure of the growing recognition of its importance to the State. A separate Sericultural Department has been organised since 1920.

Everything possible is being done by the Government of Mysore to assist the sericulturists, to reduce the cost of production of Mysore silk and to stabilise the silk industry. Apart from the money spent annually on direction, improvement of weaving, and commercial concerns connected with sericulture, the expenditure on the Department of Sericulture alone increased from Rs. 1,04,000 in 1933-34 to Rs. 2,18,105 in 1937-38 and is expected to go up to Rs. 2,45,000 during 1938-39. The Government of Mysore have spent about Rs. 22,00,000 on the Sericulture Industry during the eleven years from 1927-28 to 1937-38 as can be seen in the statement appended (Annexure III).

The work of the Department falls under the following heads:—

- (1) Education.
- (2) Expansion.
- (3) Research work.
- (4) Improvement of seed supply.
- (5) Demonstration and advice—help in case of silk-worm diseases.
- (6) Loans
- (7) Formation of Co-operative Societies.
- (8) Establishment of Filature and popularisation of Mysore silk.
- (9) Improvement of reeling machinery and methods.
- (10) Investigation of markets for silk.
- (11) Production of high class silk fabrics.
- (12) Utilisation of silk waste.

Organisation of the Department.—The organisation of the Department for working out these objects is as follows:—

The Sericultural parts of the State are divided into six Circles, each provided with a well-equipped Central Farm capable of attending to all the activities of the Department in the area allotted to it. These Central Farms are in the charge of senior officers most of whom have high academical and technical qualifications. Each Central Farm controls a number of subordinate Farms and out-posts located at strategic points so as to command the sericultural area. There are altogether 30 such subordinate Farms and out-posts. Their function is to keep in close touch with the raiyats, to secure them their requirements in the way of mulberry cuttings, silk-worm seed, rearing and reeling appliances, and loans, and to advise and guide them, and when necessary, to procure for them assistance, such as for disinfection, etc., in case of silk-worm epidemic, and to render them generally all possible assistance in making the rearings a success.

Staff.—The staff of the Department exclusive of clerical staff consists of:—

(1) Assistant Superintendents	2
(2) Senior Sericultural Inspectors	7
(3) Sericultural Inspectors	7
(4) „ Demonstrators	31
(5) „ Operatives	65
(6) Research Assistants	2
(7) Inspector for Experimental Rearings	1
(8) Sericultural Operatives for Experimental Rearing	4
(9) Mechanic	1
(10) Reeling Demonstrator	1

The improvement of reeling is attended to by an Assistant Superintendent of Sericulture with Head-quarters at Mysore. The formation and care of Sericultural Co-operative Societies is treated as a special branch of work and the Circle Officers attend to this work under the guidance of the Assistant Superintendent of Sericulture at Channapatna. The Government Silk Filature at Mysore and the Government Silk Weaving Factory at Mysore, are under the supervision of the Director of Sandal Oil Factory at Mysore.



सत्यमेव जयते

Head of Organisation—Superintendent of Sericulture.

(Headquarters—Mysore.)

CENTRAL FARMS.

Mysore.	Mugur.	Channarayana.	Kolar.	Sidlaghatta.	Kunigal.
(1) Rearing.	(1) Garden.	(1) Garden.	(1) Garden.	(1) Garden.	(Seed Centre).
(2) Grainage.	(2) Rearing.	(2) Rearing.	(2) Rearing.	(2) Rearing.	(1) Garden.
(3) Experimental work in mulberry cultivation and rearing.	(3) Grainage.	(4) Cold Storage.	(3) Grainage.	(3) Grainage.	(2) Rearing.
(4) Cold Storage.	(4) Cocoon Market.	(6) Research work— (a) Mulberry cultivation. (b) Rearing. (c) Refrigeration of Sub Farms— silk-worm eggs. (d) Refrigeration of cocoons. (e) Embryological Work.	(4) Cold Storage.	Out Posts— (1) Devanahalli. (2) Vadigenahalli. (3) Cheemangala.	(3) Grainage.
	Government Grainage Mangala.				Out Posts— (1) Kempanahalli. (2) Hobbur (Seed). (3) Chandrasekharpura (Seed). (4) Haliyurdroog (Seed). (5) Kadura (Seed).
	Out Posts— (1) T. Narsipur. (2) Honnur. (3) Ummattur. (4) Madapur (5) Soale. (6) Agara.	Government Grainage, Kankanhalli. (Cold Storage.)	(2) Rearing. (3) Grainage.		
		Out Posts— (1) Bidadi (Seed). (2) Byramangala (Seed). (3) Closepet (Cocoon Market). (4) Satarur. (5) Kodamballi. (6) Honganur. (7) Mogenahalli. (8) Maddur. (9) Malvalli. (10) Chickmuduvadi.	II. Thalagawara. (1) Grainage. (2) Cold Storage.		
		Out Posts— (1) Kyalanur.	Out Posts— (1) Kyalanur. (2) Sulabele.		

The work done by the Department under the various heads of activities is summarised below:—

- Education.*—1924-25.—10 Students, Higher Course.
 10 Students, Lower Course.
 5 Students, Short Course in Mysore.
 4 Students, Short Course in Channarayana.
 6 Students, Short Course in Hole-Narsipur.
- 1925-26.—77 Students including 22 in reeling.
 1926-27.—76 including 28 in reeling technique.
 1927-28.—83 including 33 in reeling technique.
 1928-29.—105 including 55 in reeling technique.
 1929-30.—145 including 80 in reeling technique.
 1930-31.—215 including 175 in reeling technique.
 1931-32.—85 including 55 in reeling technique.
 1932-33.—82 including 57 in reeling technique.
 1933-34.—60 including 40 in reeling technique.
 1934-35.—60 including 33 in reeling technique.
 1935-36.—48 including 10 in reeling technique.
 1936-37.—56 including 12 in reeling technique.
 1937-38.—40 including 10 in reeling technique.

In co-operation with the District Boards of Mysore, Hassan, Tumkur, and Education Department, Sericulture has been introduced as vocational and examination subject in four selected Middle Schools at Kuderu, Malvalli, Sthanthigrama and Hebbur. One hundred and sixty-eight students had taken up Sericulture in these Schools in 1932-33, 208 students in 1933-34, 210 students in 1934-35, 227 students in 1935-36, 266 students in 1936-37, and 220 students in 1937-38.

Seed Supply.—The development of this section of work furnishes a measure of the growth of the Department in influence and usefulness. Twenty-five years ago, the rearers could with difficulty be persuaded to take 200 layings a year. The table below shows the output of disease-free layings from the institutions under the control of the Sericultural Department during the several years commencing from 1924-25, along with the increased output of seed cocoons through selected seed rearers:—

Year.	Out-put of disease-free layings.		Out-put of seed cocoons (in lakhs).
1924-25 .	390,168 including	12,000 of new races . . .	70.0
1925-26 .	497,556 do.	68,000 do.	68.0
1926-27 .	542,634 do.	165,313 of cross-breed layings.	75.0
1927-28 .	732,608 do.	219,818 do.	74.0
1928-29 .	1,209,595 do.	325,778 do.	186.0
1929-30 .	1,895,141 do.	324,015 do.	220.0
1930-31 .	2,692,579 do.	297,332 do.	350.0
1931-32 .	3,210,361 do.	667,305 do.	250.0
1932-33 .	3,535,052 do.	756,543 do.	400.0
1933-34 .	3,883,340 do.	1,250,097 do.	450.0
1934-35 .	4,271,584 do.	2,240,661 do.	480.0
1935-36 .	5,480,739 do.	3,916,285 do.	600.0
1936-37 .	7,715,661 do.	5,000,000 do.	855.5
1937-38 .	10,000,000 do.	7,000,000 do.	900.0

The programme for 1938-39 is to increase the out-put to 135 lakhs of layings of which about 90 lakhs will be cross-breed layings.

A feature of the present demand is the eagerness of the raiyats for the disease-free seed and the seed of the new races. These new races and hybrids which are a result of the experimental and breeding work, represent an increase in yield of nearly 40 per cent. and a curtailment of the period of rearing by four to five days in its most expensive stage.

Some idea of the value of this branch of the Department's work can be formed when it is said that whereas formerly two crops used to be lost out of every five owing to bad seed, failures from that cause are now comparatively infrequent in areas reached by our seed organisation.

A word of explanation is necessary about selected seed rearers. Since cellular seed is expensive, and its supply is very limited, it is necessary to supplement the work of the grainages which turn out only cellular seed, by a carefully planned and controlled campaign of seed production, with the co-operation of selected rearers in the recognised seed centres. The basis of selection is a good mulberry garden, a disinfestable rearing room, and skill and reputation on the part of the rearer. The selected seed man has to bind himself to rear only cellular layings issued to him from the Government Grainages, and to submit to supervision and control. He gets the cellular seed free of cost, his rearing room is disinfected, and he is placed in touch with the general body of rearers requiring seed cocoons. There are now 520 seed rearers in the seed centres of Bidadi, Kunigal and Hebbur, capable of producing in the aggregate about 900 lakhs of seed cocoons. Special staff has been set apart for this work (Vide Annexure IV).

To meet the increasing demand for cross-breed layings, a larger quantity of Pure Foreign Race cocoons is required. With a view to increase the availability of foreign race cocoons both to Government and Aided Grainages, experienced sericulturists are selected round about the grainages on the same lines as in the case of Mysore seed cocoon producing areas and these people are supplied with Pure Foreign Race layings for rearing for seed, rendered technical assistance and the cocoons produced are bought by Government and Aided Grainages for seed purposes. These people are not permitted to sell the cocoons indiscriminately. About 200 such rearers within easy reach of Government Farms and Aided Grainages produced and supplied 77½ lakhs of Pure Foreign Race seed cocoons during 1936-37, and about 100 lakhs during 1937-38.

The following figures show the out-put of disease-free layings in Government Grainages:—

Year.	Number of disease-free layings supplied.			
1924-25	390,168	including	12,000	of new races.
1925-26	408,556	do.	68,000	do.
1926-27	512,664	do.	165,313	cross-breed layings.
1927-28	684,727	do.	219,818	do.
1928-29	813,132	do.	325,778	do.
1929-30	1,044,540	do.	324,015	do.
1930-31	1,290,804	do.	297,332	do.
1931-32	1,337,240	do.	505,939	do.
1932-33	1,682,836	do.	740,278	do.
1933-34	2,288,000	do.	1,225,000	do.
1934-35	3,249,502	do.	2,099,800	do.
1935-36	3,657,255	do.	2,686,500	do.
1936-37	4,491,900	do.	3,138,521	do.
1937-38	6,000,000	do.	4,300,000	do.

Aided Grainages.—With the object of supplementing the supply of disease-free seed issued from the Government Grainages, a system of aided grainages has been created, which offers a career to specially qualified men. For this purpose, candidates selected for intelligence and general knowledge of the industry, are put through a stringent course of grainage technique in a Government Grainage, which gives them a thorough grounding in all branches of work. Government have sanctioned liberal concessions for starting aided grainages which are under the supervision of the technical staff of the Sericultural Department. The first aided grainage was started in 1928 and there are now twenty-five aided grainages preparing and supplying cellular seed to the sericulturists in the State. It is proposed to start four new aided grainages during 1938-39. The extent to which they command popular confidence is an indication of the care with which men are selected and trained for this responsibility and the efficiency of the control exercised over their work (*Vide Annexuro V*).

As the demand for cross-breed layings increased, some of the aided grainages were provided with additional facilities such as, refrigerator, etc., and were given permission to prepare cross-breed layings. These aided grainages have to train their men for rearing pure Foreign Races, have to obtain the supply of Pure Foreign Race seed each time from Government Grainages and have to see that the sericulturists get their seed supply in time.

The following statement gives information regarding the number of aided grainages and the amount of work turned out by them:—

Year.	Total number of aided grainages.	Number of aided grainages preparing Cross breed layings.	Number of layings supplied.	
			Total.	Cross breed.
1927-28	2	...	2,000	...
1928-29	5	...	312,000	...
1929-30	11	...	710,546	...
1930-31	13	...	1,278,575	...
1931-32	16	...	1,524,178	...
1932-33	16	...	1,642,565	...
1933-34	15	...	1,387,000	...
1934-35	12	5	898,858	109,293
1935-36	15	9	1,952,067	1,173,044
1936-37	19	10	3,177,655	1,835,289
1937-38	25	18	4,000,000	2,700,000

Improvement of rearing.—With the improvement of the seed supply, and the example and the educative influence of the Government Farms, the Mysore raiyat, especially in the vicinity of the Departmental institutions, now gets a yield which represents a substantive improvement over what he used to get in the past. Twenty-five years ago, 25 to 30 lbs. was considered a fair yield for a rearing with 100 layings. The present average is somewhere about 50 lbs. in areas influenced by the new organisations. The record yield got anywhere was 96 lbs. for 100 layings of F1 race. The improvement consists in better spacing, a more suitable adaptation of food to the stage of development, more efficient methods of cleaning, attention to silk-worm hygiene and greater care in mounting and harvesting. A very large number of demonstrations accompanied with lantern lectures are held every year at important jattras, festivals or other large gatherings of people with the help of the District Boards. Competitions are arranged between improved machinery and the old time village appliances, and many a convert to rational sericulture has been secured.

Loans.—As has already been stated, the small rearer has not much economic stamina and is frequently in need of loans for short terms. He was formerly at the mercy of small money-lenders who practically squeezed him dry; and when as frequently happened, the money-lender was also a buyer of cocoons, the rearer rapidly lost freedom of sale, and fell into a position of dependence. There are two obvious remedies—State Aid through Takavi Loans, and the organisation of Co-operative Credit. Real co-operation suited to the industry is of slow growth, and as will be stated later, a beginning has been made. Government have sanctioned a scheme of sericultural loans also; in practice, these loans at present provide for long term credit for capital expenditure, while short term loans are as a rule left to co-operative and private credit. Formerly, the administration of these loans was entrusted concurrently to local revenue officers and the Superintendent of Sericulture; the revised rules of 1925 vest this responsibility solely in the Sericultural Department (Vide Annexure VI).

Co-operation.—There is no doubt that Sericulture offers an almost ideal field for co-operation, and yet strangely enough, till 1926, there was not in existence a single Sericultural Co-operative Society. One had been started by the Co-operative Department some years ago at Sidlaghatta, but it failed. It was obvious that existing types of society would not do, and that the industry required a distinctive type, combining short-term credit with supply of seed and appliances, technical guidance, and aid in marketing. The work of such a society is sericulture first, and co-operation afterwards; and close and constant technical direction is essential. A type of society suited to Mysore sericulture was worked out. Government approved of the scheme, and sanctioned a special Senior Sericultural Inspector for working it. They placed a sum of Rs. 2,800 with the Registrar of Co-operative Societies for being advanced to sericultural societies. Ten societies were formed during the year 1926-27 in the following villages:—

- | | |
|--------------------|-------------------|
| (1) Mangalawarpet. | (6) Sidlaghatta. |
| (2) Malurpatna. | (7) Thimmasandra. |
| (3) Chekkere. | (8) Kudlur. |
| (4) Mogenahalli. | (9) Mugur. |
| (5) Closepet. | (10) Kerohatti. |

At the end of June, 1937, there were 13 Sericultural Co-operative Societies in the State, of which only 8 Sericultural Co-operative Societies were active. The 8 active Societies prepared and supplied 554,900 disease-free layings during 1936-37, of which 362,332 were F₁ layings. The existing societies have been attending to the following items of work:—

- (1) Preparation and supply of disease-free seed.
- (2) Stocking of improved chandrikes and appliances.
- (3) Disinfection of rearing rooms.
- (4) Joint preparation of chawki.
- (5) Supervision of rearings and adoption of improved methods of rearings.
- (6) Short-term loans to rearers.
- (7) Joint marketing of cocoons and silk.

Filature, Village and Domestic Reeling.—A small filature of 12 basins of the French type was installed by the Government in Mysore in 1922. The object was to train labour, experiment in reeling technique, test the reeling quality of cocoons, and familiarise the silk world with Mysore Sericulture. This filature started with exporting silk to France and

England, and is now devoting itself to the manufacture of high grade silk capable of utilisation in Indian weaving. It is slowly educating the Indian demand, and preparing the way for grading up the quality of Mysore Silk as a whole. A definite demand has been created in India for the high grade silk produced in the State. The filature has now been extended and is capable of producing on the average about 10,000 lbs. of raw silk every year.

Filatures have undoubtedly an important part to play in raising the industry by giving a lead in the improvement of reeling, and by preparing the way for superior silk by advertisement and securing a demand.

Government have sanctioned liberal concessions to the Mysore Silk Filatures Company, Bangalore, to start a number of filatures in the State, the first one with 200 basins being started at T.-Narsipur.

A basin was designed by Mr. N. Rama Rao and patented under the name of the "Mysore Domestic Basin". This basin can be worked either singly or in combinations consisting of two or more. It is found by experience that five form the most advantageous combination, as they can be operated by a single turner. Silk reeled with the Domestic Basin is nearly as good as filature silk.

Several concessions, such as—the sale of domestic basins at reduced rates, on hire purchase system, on monthly instalment system and subventions for the training of reelers were granted by Government to enable the Mysore Domestic Basin owners to improve the quality of raw silk produced in the State. The number of private domestic basin installations increased from 4 in 1927 to 24 in 1932, capable of producing about 40,000 lbs. of high grade silk per year. Unfortunately, all the domestic basin owners suffered losses during the depression period as they were unable to sell the silk at remunerative rates in competition with cheap imported silks. As these basins have not been worked for over 5 years, arrangements have been made with the Mysore Silk Filatures Co., Ltd., Bangalore, who have agreed to take them over and instal them in their Filature at T.-Narsipur.

Silk Weaving.—The high grade raw silk produced in Mysore was being utilised for producing Sarees, Dhatis, etc., in India along with the Charkha reeled silk. To find wider uses for the high grade silk produced in Mysore, a Silk Weaving Factory was started by Government early in 1931. This Factory is equipped with the most up-to-date appliances for Weaving, Dyeing and Finishing silk fabrics and is the first of its kind in India. Very high grade fabrics, such as -Georgette, Crepe-de-chine, Satin and Crepe Satin which were not being produced in India prior to the starting of this Factory are being produced now utilising pure Mysore Silk. The fabrics produced in this Factory are very superior in quality and are pure dyed, as such find a sale in India in spite of the slightly higher prices. The utilisation of high grade Mysore raw silk to produce marketable silk fabrics has created an outlet for the cocoons of the sericulturists during the period of heavy depression and abnormal competition from foreign raw silk. The starting and working of this Factory has fully demonstrated that with the raw material available in India, highest grade silk fabrics can be produced in India with the Indian labour and has paved the way for the starting of such Silk Weaving Factories in other parts of India.

Utilisation of Silk Waste.—The silk waste produced in Mysore was being exported and during the last few years, the demand for the silk waste was extremely slack. As the price obtained for waste determined to some extent the sale price of raw silk, the reelers were very hard hit. With the object of finding a ready market for silk waste, a Joint Stock Company called the Mysore Spun Silk Mills was started at Channarayana. Government have taken a number of shares in the Company and have

granted other liberal concessions. This Company has started work in the factory at Channapatna, and the workmen are being trained.

Research.—Important experiments in silk-worm breeding and mulberry cultivation are being conducted in the Central Farms at Mysore and Channapatna, covering practically the whole field of sericulture. In breeding, the main objects kept in view have been selective improvement of the Mysore Race of silk-worms, fixation of new races, determination of the extent to which hybrid seed could be profitably issued for producing reeling cocoons, rearing and acclimatisation of pure foreign races for stock in the preparation of hybrid seed.

The above experiments have also yielded results of much scientific interest. They were only made possible by a free and successful employment for the first time in India of the artificial treatment of hibernating eggs so as to make them hatch like multivoltines.

In co-operation with the Government of India, who have kindly sanctioned special grants for the purpose, the following items of research work have been undertaken by the Department since 1935:—

- (1) Refrigeration of multivoltine seed.
- (2) Refrigeration of multivoltine seed cocoons.
- (3) Refrigeration of hybrid seed.
- (4) Refrigeration of multivoltine seed cocoons combined with refrigeration of layings of such seed cocoons.
- (5) Period of hibernation of univoltine and bivoltine seed.

The first item of research work was completed and the results have been communicated to the Imperial Sericultural Committee. The results have been adopted in the Government and aided grainages in Mysore wherever refrigerators are available.

The second and third items of research work are under progress. The fourth and fifth items of research work will be started in July, 1938.

SPECIAL MEASURES TAKEN TO IMPROVE AND ENCOURAGE THE INDUSTRY.

The special measures taken during these few years to stabilise the silk industry, to encourage sericulturists and to reduce the cost of production of Mysore silk are noted below:—

1. The results of the experiments conducted in the Government Silk Farms are being communicated to the sericulturists and the Departmental staff have been rendering the necessary assistance to the sericulturists so that they may derive the benefit.

2. A number of sericulturists have been induced to use groundnut oil cake and ammonium sulphate for their mulberry gardens so as to increase the output of leaves. The Government Farms in the sericultural centres stock the manures required and sell the same to sericulturists at cost price. It has been found that the use of the above manures in rotation with the farmyard manure increases the output of leaves per acre without increasing the cost.

3. Seedlings are raised in all Government Mulberry gardens to supply cutting from these to the sericulturists as it is found that the yield of leaves from "seedling plantations" is about 15 per cent. more than that from "cutting plantations." A few sericulturists have raised bush plantations from "seedling cuttings" and more people are coming forward to use such cuttings only.

4. Saplings fit to be raised as trees are being supplied on a large scale to the sericulturists from the Government Silk Farms free of cost and demonstration mulberry topes have been raised with the co-operation of

the Village Panchayets in a number of villages. Some of the sericulturists who have raised mulberry topes have realised the advantages and many others are coming forward to raise mulberry trees. The Government of Mysore have sanctioned the payment of a bonus to sericulturists who raise mulberry topes (Annexure VII). In addition to the nursery for saplings in Government Farms, private sericulturists have also been induced to raise their own saplings for raising topes.

5. The incidence of pebrine has been minimised by paying strict attention to rearings in seed producing areas, by supplying disease-free layings free of cost to all the seed rearers and by inspecting the rearings of these people in all stages. This work in seed areas has prevented the loss of crops due to pebrine in consuming centres even where people use the seed cocoons. This systematic work in seed areas has made possible improvement of Mysore race by selection.

6. The incidence of pebrine in the foreign races used for rearing for seed purposes has also been minimised by conducting cellular rearings in Farms. Experienced sericulturists in the vicinity of Government Farms and Grainages have been selected for rearing Pure Foreign Race worms out of cellular seed issued free from Government Farms so as to increase the availability of foreign race seed cocoons required for preparing hybrids.

7. The number of Government Grainages has been increased from 6 to 10 and the number of aided grainages has been increased to 25. Nine Government Grainages and 18 aided grainages have been preparing hybrid layings. Four new aided grainages will be started during 1938-39. Refrigerators to delay the emergence of moths, to delay the hatching of layings in case of necessity have been supplied to almost all the Government Grainages and aided grainages preparing hybrid layings.

8. The out-put of disease-free layings (including hybrid) from all the institutions has been raised from 32 lakhs of layings in 1931-32 to about 100 lakhs of disease-free layings during 1937-38. The programme for 1938-39 is to produce 135 lakhs of layings. The out-put of hybrid layings has been raised from 566,000 layings in 1931-32 to about 70 lakhs in 1937-38 and the programme for 1938-39 is to produce 90 lakhs.

The out-put of seed cocoons in seed areas and of foreign race seed cocoons round about grainages has been raised from 250 lakhs in 1931-32 to about 900 lakhs during 1937-38, and the co-operation of experienced sericulturists has been secured to increase the availability of pure foreign race cocoons for preparing hybrids.

9. A draft bill for penalising the use of unexamined seed has been prepared and sericulturists are being educated to realise the advantages of having such control.

10. The staff of the Department have been conducting demonstrations in improved methods of rearing in the homes of the sericulturists and many people have adopted the improved methods with satisfactory results. The yield of cocoons per unit area of mulberry per year has been gradually increased to about 350 lbs. in the case of Mysore layings and to about 450 lbs. in the case of hybrid layings.

11. The increased production of cocoons from examined seed and the increased out-put of hybrid cocoons have also increased the out-put of raw silk and reduced the rendita.

12. The sale price of disease-free layings from Government Grainages has been reduced from one rupee to annas eight per 100 Mysore layings and Rs. 1-8 to Rs. 1 per 100 hybrid layings since March, 1934 as a measure of relief to sericulturists.

13. The aided grainages have been granted a bonus of Rs. 5 per 1,000 layings irrespective of the period for which they have been working.

14. Cocoon markets have been started at Channapatna, Mugur and Closepet so that the rearers and reelers may meet in a common place and transact business. These markets are gradually becoming popular.

15. The Mysore Silk Association has been working in close co-operation with the Department of Sericulture and has been given the privilege of electing a member to the Representative Assembly. The President of the Silk Association has been nominated as a member of the Legislative Council.

16. A Board of Sericulture consisting of officials and non-officials interested in silk industry and presided over by the Member of Council in charge has been constituted in 1935 to advise the Government in regard to the development of the silk industry.

17. A joint stock concern called the Mysore Spun Silk Mills, Ltd., was started in 1936 with the generous assistance of Government and with a share capital of Rs. 10 lakhs. The factory has constructed buildings at Channapatna, has installed machinery and has been training workmen.

18. A joint stock concern called the Mysore Silk Filatures, Ltd., was started in 1937 with the generous assistance of Government and with a share capital of Rs. 10 lakhs. The Company has collected share capital, has acquired lands at T.-Narsipur and has started the construction of buildings and the training of work people. The Company has arranged to start work very early by erecting the Mysore Domestic Basins after converting them for power drive so that high grade Mysore Silk may be made available in Indian markets.

19. A survey of all the sericultural villages in the State was conducted during 1937-38 and statistics relating to the area under mulberry, yield of cocoons, etc., have been collected.

20. A Publicity Section has been formed in the Department of Sericulture to issue in Kannada, leaflets and bulletins containing information useful to sericulturists.

21. A correspondent has been maintained in Japan to supply information regarding the measures adopted in that and other countries for the improvement of the silk industry.

22. All the Central Farms in the State have been taking educated young men and sons of sericulturists for training in sericulture. Students have been deputed by Bihar, Assam and Punjab Governments to receive training in the Farms in Mysore. The University of Mysore have decided to institute post-secondary diploma course in Sericulture from the year 1940.

23. Steps have been taken to test the raw silk produced in Mysore Filatures and to issue test certificates free of cost as a preliminary to start a Silk Conditioning House.

24. Government reduced the rates of ordinary and penal interest, in the case of sericulture loans granted extension of time for the repayment of loan instalments and waived penal interest in deserving cases as a measure of relief to sericulturists.

25. Steps were taken to demonstrate to the reelers in country charkhas the methods of improving the quality of raw silk and of improving the quality of silk waste.

H. S. GOVINDA RAO,

Superintendent of Sericulture
in Mysore.

M. S. RAMCHENDRA RAO,

Director of Industries and Commerce
in Mysore.

BANGALORE, }

June, 1938. }

ANNEXURE I.

The following statement shows the area under mulberry, the estimated total output of raw silk and silk waste together with their values from 1926-27 to 1937-38.

Year.	Total area under mulberry.	Production of raw silk.		Production of silk waste.	
		Lbs.	Value.	Lbs.	Value.
	Acres.		Rs.		Rs.
1926-27 . . .	53,483	1,160,000	1,10,20,000	580,000	5,80,000
1927-28 . . .	50,194	1,000,000	90,00,000	500,000	2,50,000
1928-29 . . .	46,312	920,000	73,80,000	480,000	2,30,000
1929-30 . . .	43,824	880,000	69,30,000	440,000	2,20,000
1930-31 . . .	42,891	860,000	51,60,000	430,000	1,07,000
1931-32 . . .	36,511	740,000	41,62,500	370,000	92,500
1932-33 . . .	36,399	806,300	41,56,900	403,100	72,400
1933-34 . . .	32,889	788,800	31,55,200	394,400	43,130
1934-35 . . .	30,228	755,700	30,22,800	377,800	23,250
1935-36 . . .	28,528	741,700	29,66,800	370,800	52,200
1936-37 . . .	25,132	703,600	28,14,400	351,300	55,670
1937-38 . . .	26,500	795,000	..	397,500	..
	(Approximate).	(Approximate).		(Approximate).	

The following statement shows the total quantities and values of raw silk and silk waste exported from the State from 1926-27 to the end of December, 1937 (April to end of March each year).

Year.	Export of raw silk.		Export of silk waste.	
	Quantity in lbs.	Value in lakhs.	Quantity in lbs.	Value in lakhs.
		Rs.		Rs.
1926-27 . . .	746,692	66.87	613,278	6.10
1927-28 . . .	670,760	58.01	480,848	2.25
1928-29 . . .	610,650	52.30	493,394	2.50
1929-30 . . .	552,844	42.68	462,890	2.27
1930-31 . . .	383,440	23.13	234,720	0.59
1931-32 . . .	367,440	22.20	266,560	0.67
1932-33 . . .	377,198	19.42	117,829	0.215
1933-34 . . .	430,212	16.84	87,634	0.086
1934-35 . . .	461,952	18.16	269,403	0.212
1935-36 . . .	541,851	21.30	412,745	0.586
1936-37 . . .	532,506	21.31	303,963	0.496
1937-38 . . .	406,162	...	139,063	...

(Up to end of Dec.
1937)

ANNEXURE II.

*Raw silk and Twisted silk imported into the State.**Quantity and value (April to end of March each year).*

Year.	Raw silk.		Twisted silk.	
	Quantity in lbs.	Value in Rupees.	Quantity in lbs.	Value in Rupees.
		Rs.		Rs.
1932-33 . .	169,179	8,71,591	19,825	1,77,479
1933-34 . .	189,588	7,39,233	60,480	5,09,193
1934-35 . .	230,482	9,08,131	96,027	7,61,982
1935-36 . .	293,595	11,43,714	123,099	9,16,840
1936-37 . .	379,913	15,80,203	69,202	6,05,520
1937-38 (Up to end of Dec. 1937) . .	422,455	...	36,864	...

*Artificial Silk and Artificial Silk Twist Imported into the State—Quantity and value.**(April to end of March each year.)*

Year.	Artificial silk.		Artificial silk Twist.	
	Quantity in lbs.	Value in Rupees.	Quantity in lbs.	Value in Rupees.
	Lbs.	Rs.	Lbs.	Rs.
1932-33 . . .	2,304	2,860	441,381	8,04,600
1933-34 . . .	3,374	3,362	562,670	9,23,130
1934-35 . . .	1,563	1,045	615,333	5,60,850
1935-36 . . .	43,447	31,680	613,522	5,14,464
1936-37 . . .	20,818	17,710	647,589	6,13,860
1937-38 (Up to end of Dec. 1937) .	21,312	...	748,882	...

ANNEXURE III.

Expenditure incurred by the Government of Mysore for the Sericultural Industry in the State during the 11 years from 1927-28 to 1937-38.

	Rs.
1. Salaries and Establishment— (Of the Department of Sericulture)	6,91,147
2. Government Silk Farms—	
(a) For construction of buildings that were required for new farms opened and expansion of work in existing farms	1,37,676
(b) For maintenance of mulberry gardens	1,51,257
(c) For rearing and grainage work: Disease-free layings: 31 million layings	2,14,969
3. Special charges—	
(a) Experiments (includes Rs. 11,500 given by the Government of India as a grant)	1,08,450
(b) Purchase of books (preparation of bulletins, etc.)	17,743
(c) Sericultural training scholarships	21,758
4. Loans and Concessions—	
(a) Sericultural loans	71,553
(b) Free supply of mulberry cuttings and saplings	26,300
(c) Free supply of disease-free layings to seed rears: 28 lakhs	24,500
(d) Supply of disease-free layings to depressed classes at concession rates: 55 lakhs	23,000
5. Subventions—	
(a) To aided grainages: Bonus on disease-free layings distributed: 20 million disease-free layings	80,550
(b) For popularisation of the Mysore Domestic Basins	18,660
(c) To the Mysore Silk Association	9,400
(d) To Cocoon markets	2,600
6. Government Silk Weaving Factory— Capital outlay on buildings, machinery and work- ing expenses	4,08,000
7. Government Silk Filature— Capital outlay on buildings, machinery and work- ing expenses	1,10,000
8. Mysore Spun Silk Mills, Limited— Share Capital	85,000
9. Mysore Silk Filature, Limited— Share Capital	15,000
Total	<u>22,18,666</u>

N.B.—The above amount does not include the expenditure on direction, improvement of Weaving and Silk Throwing, etc.

ANNEXURE IV.

SEED CAMPAIGN.

The sericulturists in the Mysore State and in Kollegal generally do not use the cocoons produced in their locality for seed purposes. They obtain their seed cocoons and Bidadi, Kunigal and Hebbur areas which are noted seed centres. This custom is based on long experience, and has now hardened into a deep rooted conviction which needs to be taken into account in organising seed supply. Administratively this has the great advantage of limiting the seed area and rendering concentration of effort possible. The rearers in seed areas have small mulberry gardens and the rearings are also on a small scale, with the result that both the mulberry and the worms receive very careful attention. The rearers from distant places go to the seed centres, watch the growth of the worms and purchase the cocoons for seed if found satisfactory.

The grainages of the Sericultural Department supply cellular seed only to the rearers. Since the cost of production of cellular seed is high and its supply limited, it was found necessary to supplement the work of the grainages by a carefully planned and controlled campaign of seed cocoon production with the co-operation of selected rearers in the recognised seed centres. It was found that control over the production of seed cocoons made the work of the grainages safer and more economical and what is more important, rendered possible continuity in selective improvement of the worms. This work became so pivotal that to develop and consolidate it, special seed campaign offices have been established at Bidadi, Kunigal and Hebbur.

The basis of selection of a seed rearer is a good mulberry garden, a disinfestable rearing room and skill and reputation on the part of the rearer. The selected man has to bind himself to rear only cellular layings issued from Government Grainages and to submit to supervision and control. These selected seed rearers have been receiving the following facilities from the Department:—

- (1) Free disinfection of rearing houses to eliminate contagious diseases.
- (2) Free supply of cellular layings up to a limit of the capacity of the mulberry garden of each rearer.
- (3) Frequent inspection of rearings by the Departmental staff set apart for the purpose.
- (4) Free microscopic examination of worms of all stages to find out diseases and to see that seed cocoons reasonably free from diseases are made available to rearers.
- (5) Free microscopic examination of moths of the seed rearers if they bring their own seed cocoons for their own rearings.
- (6) Arranging for the supply of disease-free seed from the locality best suited to the seed rearers.
- (7) Grant of sericultural loans for improving gardens and houses and for purchases of appliances.
- (8) Arranging for the sale of seed cocoons of seed rearers to Government Grainages, aided grainages, Village Panchayets, Sericultural Co-operative Societies and to prominent chawki rearers.
- (9) Putting into touch with the sericulturists who come in search of seed cocoons.

The Department selects a certain quantity of the best seed cocoons of each rearer, and this renders progressive improvement possible.

There are now 534 seed rearers on the lists of the Department capable of producing about 900 lakhs of seed cocoons per year. These seed rearers put on the market about 70 lakhs of seed cocoons in 1924-25 and 100 lakhs of seed cocoons during 1936-37 and 900 lakhs during 1937-38. The

seed cocoons produced by these seed rearers with cellular seed have given satisfaction to the consumers. Though the assurance of healthy seed cocoons of known history is a very great advance, yet the ultimate ideal is a self sufficient system of aided grainages issuing industrial seed prepared from such cocoons. This is the objective which the Department has been steadily working to reach.

There are about 200 selected seed rearers of Pure Foreign Races within easy reach of grainages and these produced 77 lakhs of seed cocoons during 1936-37, and about 100 lakhs during 1937-38.

ANNEXURE V.

DEVELOPMENT OF AIDED GRAINAGES IN THE MYSORE STATE.

With a view to enable private grainages being started on a large scale, Government have sanctioned the following concessions:—

1. One microscope, two sets of mortars and pestles, 8,000 tin rings and one sprayer will be given to each grainage for one year on condition that they will be either returned or retained for half the price at the end of the year, provided the grainage is able to show satisfactory results in the meanwhile.

2. An outright grant of Rs. 34 will be given for the purchase of the following articles:—

1. Slide carriers	6
2. Caustic Potash	1 lb.
3. Formaline	6 „
4. Egg Boxes	3 small and big.
5. Cover glasses	2 ounces.
6. Slides	100

The above grant is given only once to each grainage and is generally given in the way of supply of the above articles. If the above articles are required again they may be sold at cost price.

3. Printed books, etc., as noted below will be given free of cost by the Department as and when required by the grainages:—

- (1) Indent Book.
- (2) Eggs Preparation Register.
- (3) Eggs Disposal Register.
- (4) Examination Cards.
- (5) Receipt Book for Cash Sales.
- (6) Credit Bill Book.
- (7) Grainage Fortnightly Report Forms.

4. The Aided Grainages are permitted to correspond with the officers of the Sericultural Department on official business.

5. The Sericultural Department will render necessary help in getting seed cocoons from seed rearers, if required at market prices.

6. A bonus of Rs. 5 for every 1,000 disease-free layings prepared and distributed will be given to each grainage for two years after its starting work, and half the amount for three years thereafter.

The following conditions have been laid down by Government regarding the Aided Grainages:—

- (1) Each grainage should produce not less than 50,000 layings a year. Only Pure Mysore laying should be prepared.

- (2) Grainage technique should conform to the standards prescribed by the Department of Sericulture.
- (3) Price charged for the disease-free layings prepared at the grainage, should be reasonable and left to the discretion of the graineurs.
- (4) The persons starting the grainages must be practical sericulturists, should have undergone training in grainage work in a Government Grainage and should hold certificates of proficiency in grainage work, training in grainage work being given free of cost in the nearest Government Grainage.
- (5) They must be persons of good character and should be literate.
- (6) Their grainages should be situated in or very near sericultural centres.
- (7) The persons should undertake to follow the instructions and rules laid down for work in the Government Grainages.
- (8) They should undertake to keep a record of the results of the rearings from the seed issued from the Grainage.
- (9) They should undertake to keep regular accounts and necessary records which should be open for inspection to the Officers of the Sericultural Department. They must also send periodical returns required.
- (10) They should undertake to give timely intimation regarding the time of each grainage operation and should issue the layings to the raiyats after the layings are inspected and passed by one of the Officers of the Department.

EXTENSION OF FACILITIES TO AIDED GRAINEURS FOR PREPARING CROSS-BREED LAYINGS.

(G. O. No. D. 8018-19—Seri. 24-34-5, dated the 26th June, 1935.)

A.—*Selection of Candidates.*—1. The aided grainage should have satisfactorily worked for at least two years, must be located in an area where the rearing of cross-breed has been popularised, and where the demand for cross-breeds is increasing.

2. The aided graineur should have sufficient training in preparing cross-breed layings as certified by the Circle Officers of the Sericultural Department.

3. The aided graineur should have sufficient experience of rearing pure foreign race worms, should possess adequate facilities for getting a continuous supply of foreign race cocoons, i.e., the aided graineur must have trained a number of reliable sericulturists in his area for rearing foreign race cocoons.

4. The aided graineur should have a suitable building for carrying on grainage work.

5. The graineur should have successfully arranged to rear foreign race worms in his area and supply the foreign race cocoons to Government grainages.

6. As far as possible electric power supply should be available in the place where the aided grainage would be located.

7. The aided graineur should obtain all his supplies of foreign race layings required for rearing in his area from Government Grainages only and should not produce his own foreign race seed. This is necessary in the interest of proper control of the races and for adjustment of seasonal varieties of foreign races and to prevent promiscuous multiplication of cross-breed without nomenclature.

8. The aided graineur must bind himself to carry on the work according to Departmental rules and should follow the instructions of the Departmental officers and should be subject to the supervision of the Departmental officers. The sericulturists who rear foreign race cocoons of the aided graineur should also be guided by the Officers of the Sericultural Department.

9. The aided graineur should inspect the rearings of the sericulturists out of the cross-breed layings supplied by him, should instruct the rearer and should see that the cocoons produced are utilised or sold for reeling only and not for further breeding.

10. The aided graineur should bind himself to carry on the work according to Departmental rules that may be framed in this behalf and should sell the layings at the rates in the Government Grainages.

B.—Facilities to be given by Government for each aided grainage to prepare F1 layings.—1. Supply of Pure Foreign race cellular layings suited to each locality and seasons free of cost according to the programme of production of F1 layings by each aided grainage.

2. Technical assistance to guide the aided graineur in preparing cross-breeds, in rearing pure foreign race worms, to supervise and inspect the rearings of raiyats, and to prevent clandestine preparation of cross-breeds of unapproved races.

3. Supply of refrigerator costing about Rs. 800 the aided graineur paying half the cost of the refrigerator after a year's satisfactory working of the aided grainage, the other half being borne by Government.

4. Payment of bonus at Rs. 5 for every 1,000 cross-breed layings prepared and distributed and crops from which have been successfully harvested by sericulturists. At least 50,000 F1 layings should be prepared and distributed for earning the bonus during a year.

ANNEXURE VI.

STATEMENT SHOWING THE LOANS GRANTED TO SERICULTURISTS DURING EACH YEAR.

Year.	No. of loans granted.	Amount. Rs.
1924-25	10	2,830
1925-26	39	7,450
1926-27	38	8,160
1927-28	37	9,330
1928-29	15	5,050
1929-30	41	15,425
1930-31	46	12,440
1931-32	55	11,350
1932-33	26	5,290
1933-34	10	1,340
1934-35	15	3,200
1935-36	11	1,350
1936-37	11	1,250

ANNEXURE VII.

G. O. No. I. C. 343-52—A. & E. 68-21-9, dated the 15th July, 1925.

MULBERRY TOPES.

Concessions granted to people who raise Mulberry Topes.

Government consider that it is necessary to encourage the growth of mulberry topes. They are accordingly pleased to sanction the following concessions in the case of people who desire to raise mulberry topes:—

- (1) Unassessed Government waste lands and assessed dry land, if unoccupied at the time of disposal for ten or more years continuously, may, where no objection exists to its grant, be given free of assessment for three years from the date of the grant, after which the assessment fixed, shall be levied as specified below:—

4th year	½ assessment.
5th year	½ „
6th year	½ „
7th year and thereafter	full „

Gomal lands and lands set apart for other communal purposes should not ordinarily be given out for raising mulberry topes.

- (2) The lands may be given to the applicants at an upset price to be fixed by the Deputy Commissioners. In the event of there being more applicants than one for the same land for raising a mulberry tope, the lands should be disposed of by auction. When the land asked for by an individual exceeds 50 acres, it should be granted only after obtaining the sanction of the Revenue Commissioner.
- (3) Twenty-five per cent. of the land comprised in the grant should be planted with mulberry trees within the second year and another twenty-five per cent. in each succeeding year, so that the whole area will be planted within five years. Failure to fulfil this condition will render the grant liable to be cancelled.
- (4) The grantee shall be bound to take proper care of the mulberry trees and to replant trees in the place of those dying or otherwise disappearing.
- (5) The grantee shall be entitled to a title deed for the land at the end of eight years, provided he has fulfilled all the conditions of grant sanctioned above.

The following further concessions have been granted by Government in connection with the raising of mulberry topes:—

(G. O. No. D. 2189-90—Seri. 13-35-2, dated the 1st October, 1935.)

1. Grant of a bonus to sericulturists for raising mulberry topes for a period of five years.

2. A bonus of Rs. 12-8 will be paid by the Department of Sericulture on every 100 mulberry trees raised by sericulturists provided the conditions laid down are fulfilled by them. One half of the bonus will be paid at the end of the third year of planting and the remaining half at the end of the fifth year.

3. The mulberry seedlings required by the sericulturists, will as far as possible, be supplied free of cost, from the nearest Government Silk Farm.

ANNEXURE VIII.

RULES RELATING TO THE GOVERNMENT COCOON MARKETS.

Objects.—1. Stabilising cocoon prices by establishing a correlation between Raw Silk Market and cocoon prices.

2. Minimising unhealthy competition by having open transactions on the lines of Cocoon Markets in Japan.

3. Establishing fair dealings by affording facilities for correct weights and methods.

4. Lowering cost of production of Mysore Silk by minimising collection, and other incidental charges in obtaining cocoons in a central place instead of going from village to village for transacting business in cocoons.

Admission of Persons.—All *bonâ fide* silk-worm rearers and solvent reelers (reelers mean proprietors of reeling establishments, their agents or representatives) will be admitted to the market. Silk-worm rearers and their helpers will be admitted on the certificate of Village Panchayat Chairman, or Patel and the reelers on the recommendation of the Managing Advisory Committee.

Management.—The management will be vested with the Senior Officer of the Department of Sericulture in the Circle, assisted by an Advisory Managing Committee consisting of Silk-worm Rearers, Reelers and other important non-official gentlemen connected with the silk industry. The Senior Officer in charge of the Circle will be the Chairman of the Committee. (Senior Officer of the Circle includes the Senior Officer of the Circle or his Representative.)

The Committee will be a nominated one.

Functions of the Advisory Committee.—1. To bring reelers and rearers together, and arrange for transactions of cocoon on the open market purchase system detailed below:—

2. One of its members will be present when bidding takes place and help the Sericultural Officer in conducting the transaction.

3. Investigate the solvency and local financial standing of the reelers seeking admission, and recommending admission of suitable purchasers to the market.

4. To carry on all propaganda and other work to attain the objects of the cocoon market.

5. Help rearers and reelers to settle differences of opinion in transactions.

Price Range Committee.—To prevent speculation and to restrict unhealthy competition amongst reelers, or to prevent vicious combines that aim at lowering cocoon prices below reasonable rates a "Price Range Committee" will be constituted consisting of Sericultural Officer representing the Circle Officer and two members of Advisory Managing Committee. Members to this Committee will be nominated by the Chairman of the Cocoon Market once a month or as often as is found necessary.

Functions of the Committee.—This Committee will study silk market conditions and fix price range for cocoons—maximum and minimum per tooka of 12 lbs. for a day or for a week as the market conditions may necessitate. No transactions of cocoons will be allowed in the Cocoon Market if maximum and minimum prices fixed are transgressed. The Sericultural Officer that conducts the transactions will have the power to veto transactions referred to above.

Time of Transactions.—The market will open every day for transactions in cocoon from 2 P.M. to 6 P.M.

Method of Transactions.—The cocoons brought by the raiyats will be assembled in a place and made available for the inspection of the

purchasers. The cocoons will be sold to *bond fide* purchasers on offers made for each lot of cocoons brought by an individual rearer, or a lot of cocoons sold combinedly by rearers, if desired by members of a family or otherwise, on auction chits on which purchasers will enter the rate per tooka of cocoons and initial the chit and hand over to the officer concerned. The prices offered will be treated as confidential, only the highest offer admissible according to price range table (which will also be confidential) will be declared to those present. Suitable seating arrangements of numbered seats for purchasers will be made in the transaction room to facilitate purchasers for writing "Auction Chits". Sellers will present cocoons in entire lot to be sold at the exposition table for inspection of purchasers. The purchasers and sellers are prohibited from talking to each other or amongst themselves while transactions actually take place. The purchasers of the cocoons are required to sit in the seats fixed in the transaction room and they will be supplied with chits. They should write their offers on the chit and hand over to the officer of the Sericultural Department who will be present at the time of sales. He will open all the chits and knock down the cocoons to the highest bidder in conformity with the above rules. The successful purchaser will pay cash to the seller, or the transaction may be on credit if the seller agrees, the cocoon market taking no responsibility for the payments. The purchasers are forbidden to have any kind of conversation while offering their bids either with the seller or with other purchasers. If any man induces the other purchasers to offer more or less, such offer will be considered null and void. The decision of the officer of the department present on the occasion will be final in all respects.

The Market is not responsible for payments by the purchasers to sellers. However, to safeguard the interests of the rearer only such purchasers will be admitted as are found to be solvent by the Advisory Committee.

A Register will be maintained by the Market Office wherein the signature of both sellers and buyers or thumb impressions will be taken indicating the details of transactions that take place from day-to-day.

No transaction of cocoons will take place if brought after 6 P.M. But rearers will be given the facility to stock cocoons in the Store Room which will be locked and sealed and the peon will guard the stock. Cocoons will not be allowed to be kept for more than 24 hours in the Store Room. The storage of cocoons will be on the responsibility of the person storing the cocoons. The cocoon market will not be responsible for any loss (i.e., theft or drvage, etc.). All the members, i.e., both buyers and sellers should abide by the decision of the officer of the department when transactions are conducted.

Weight of Cocoons.--The cocoons will be weighed openly using the Government scale and weights by the Officer of the Sericultural Department or his nominee in the presence of those present.

Responsibility of Sellers and Purchasers.--Sellers of cocoons if they accept the highest rate declared, are bound to sell cocoons to the purchaser if cash payment is made by the purchaser declared by the Market. The seller is at liberty, however, to sell it to others if he so desires, if the purchaser does not pay cash. Encouragement will be given for cash transaction.

(2) *Letter No. C1-412/37-38, dated the 22nd July, 1938, from the Director of Industries and Commerce in Mysore, Bangalore.*

SERICULTURAL ENQUIRY (HANDLOOM INDUSTRY).

Questionnaire for local Governments.

With reference to your letter No. 510, dated the 14th May, 1938, addressed to the Secretary to Government of Mysore, Development Department,

Bangalore, on the above subject, copy of which has been forwarded to me, I have the honour to forward herewith replies to the questionnaire relating to the Handloom Industry in the State, with six spare copies, as desired in your letter under reference.

SERICULTURAL ENQUIRY. (HANBLOOM INDUSTRY.)

Replies to the Questionnaire for Local Governments.

1. (a) It is estimated that there are at present 30,000 Handloom weavers in the State, each having one loom on an average. The total number of handlooms in the State is estimated at about 30,000.

Of the above number it is estimated that the number of weavers engaged—

- (i) In weaving pure silk goods only—3,700.
- (ii) In weaving both cotton and silk mixed goods (i.e., in making cotton piece-goods with silk borders)—1,600 and
- (iii) In weaving cotton goods only—20,000,

and the remaining handloom weavers are engaged in weaving woollen goods.

(b) No. There has been no increase in the total number of handloom weavers since 1921. On the other hand there has been a gradual decrease owing chiefly to competition by similar handloom goods produced in the several weaving centres in the Madras Presidency as well as goods produced on power looms in several places in and outside the State.

2. The Silk weavers obtain locally their supplies of raw materials—both Indian and imported—from the merchants with whom they have dealings. Raw silk is both Mysore and imported. The whole of the spun silk and artificial silk are of Foreign origin. Gold thread used by the handloom weavers in the State is manufactured at Surat.

The prices at which the raw materials are purchased by the handloom weavers vary slightly from one weaving centre to another, depending on the distance from the source of supply to the manufacturing centre, transport facilities, etc., Bangalore is the important consuming and distributing centre and the variations as between the prices obtaining in Bangalore and the other weaving centres in the State are reported to be about As. 4 to As. 8 per lb.

The following are the prices paid by the weavers in the Bangalore market for the raw materials mentioned above according to the market conditions in June, 1938:—

	Price per lb.	
	Rs. A.	Rs. A.
(i) Mysore Charka-reeled silk (raw)	3 6	to 5 1
(ii) Mysore Charka-reeled silk (twisted)	5 0	„ 6 4
(iii) Bangalore Filature	6 4	„ 7 4
(iv) Kashmir Filature	6 8	„ 7 8
(v) Canton Steam Filature	4 4	„ 4 6
(vi) Japan Filature	5 6	„ 6 0
(vii) Spun Silk (210/2)	4 6	„ 5 11
(viii) Artificial Silk Yarn	0 12	„ 0 13
(ix) Gold thread	28 0	„ 57 0

3 & 4. From enquiries made at the several weaving centres in the State, it is learnt that yarn made from staple fibre is not used by the weavers in the manufacture of silk goods.

5. With the exception of twisting and winding which is generally done in the Silk Throwing Factories at Bangalore, the other operations, namely, boiling off, dyeing, doubling and preparing the warp are done by the weavers themselves in their own homes assisted by the members of their families. In some of the weaving centres, however, as Chikkanayakanhalli,

Kaukanhalli, Chikballapur, Molakalmuru and Holenarsipur, which are far away from Bangalore where the Silk Twisting Factories are situated, the weavers purchase raw silk and get the same twisted by the local professional men. It is learnt that while 75 per cent. of the weavers attend to degumming and dyeing of silk in their own homes, the remaining 25 per cent., especially those who are in and around Bangalore go in for silk dyed in the Dyeing Factories at Bangalore.

6. The majority of the weavers in and around Bangalore use Foreign silk for both warp and weft. About 10 per cent. of the weavers use local silk for weft only. It is only in the remote and interior parts of the State such as Malakalmuru, Holenarsipur, Chikkanaikahalli and Gudibanda that the weavers still use Mysore Silk for both warp and weft. But the latter being only a very small percentage of the total number of weavers in the State, it is estimated that not less than 90 per cent. use Foreign silk only (China and Japan as well as Kashmir filature silk) both for warp and weft.

7. Even to day, in most of the weaving centres in the State, the organisation of the handloom industry is in the hands of merchants who finance it. These merchants supply the necessary raw materials to the weavers and take the finished product after paying the wages due to them. The weavers complain that they have not been getting a fair deal under this system inasmuch as their wages have been reduced by 25 to 30 per cent. since two years. The merchants attribute this reduction in wages to lack of demand for the finished products supplied to them by the weavers. The financing merchant is a useful and important link or agency in the industry and it is not easy to completely do away with him and it is also perhaps not desirable to do so unless he can be replaced by a better agency. The starting of Weavers' Co-operative Societies may to some extent solve the difficulties of the weavers.

8. Of the several varieties of silk goods referred to under this item, sarees of different patterns and designs constitute the chief variety of silk goods produced by the handloom weavers in the State. As regards other varieties, "Angavasthrams" (Dupattas), "Makhtams" (silk dhoties for use on ceremonial occasions), shirtings and hand kerchiefs are being produced at Molakalmuru; lungis at Holenarsipur and Kikkeri; snitings and gown pieces in the silk centre at Kaukanhalli and Gota at Bangalore. "Kanamms" (cloth for bodices for women) are largely produced at Magadi, Bangalore taluk. In the silk centre at Kaukanhalli, shirtings, upper cloths, lungis, printed shawls, kerchiefs, umbrellas, printed dress pieces, turbans, etc., are also being prepared. It is ascertained that plain silk cloth woven on handlooms which can be used for shirtings and jackets has to directly meet to its disadvantage severe competition from imported piecegoods.

9. The total value of pure silk, and silk mixed goods woven on handlooms in the State (from the materials mentioned under question No. 2) is estimated at Rs. 65 lakhs per year.

10. (Vide page 86).

11. Japan filature, canton steam filature, Kashmir filature, Mysore filature and Mysore Charka-reeled silk are the various kinds of silk used by the handloom weavers in the State in the manufacture of silk goods. The quantity of silk used varies according to the nature and size of the finished article. The quantity of raw silk used for solid border silk saree is usually 2 lbs. while for filature sarees, the quantity used is about 1 lb. 14 tolas per saree. It is learnt that in the case of cotton sarees with silk borders, the quantity of silk used is 8 to 10 tolas while for silk "Angavasthrams" and "Makutams", the quantity of raw silk used ranges from 1 to 1½ lbs.

12. (Vide answer to question 10 above.)

13. The approximate value of silk goods woven in the State at present is Rs. 1,85,064 per month or Rs. 22,20,768 per year.

10. Particulars showing the length and breadth, approximate price and the time taken by a weaver to produce the finished article in each category are noted below:—

Serial No.	Description of the article.	Length and Breadth.	Price.	Time taken.
1	Silk Sarees (Mysore and Foreign Silk).	8 to 9 yards long and 44 to 46 inch wide.	Rs. 15-0-0 to 30-0-0 per saree .	10 to 15 days per saree.
2	Filature Silk Sarees	9 yards long and 46 inch wide . .	Rs. 15-0-0 to 50-0-0 per saree .	3 to 10 days per saree.
3	Cotton Sarees with Silk borders .	8 to 8½ yards long and 42 inch wide.	Rs. 4-0-0 to 7-0-0 per saree .	4 to 5 days per saree.
4	Cotton Sarees	8 to 9 yards long and 42 to 44 inch wide.	Rs. 1-12-0 to 3-0-0 per saree .	3 days per saree.
5	Silk "Kanam" (Bodice)	Each piece of 16 Kanams being 9 yards long and 32 inch wide.	Rs. 10-0-0 per piece	30 days for weaving 3 pieces of 16 Kanams each.
6	Cotton "Kanam"	Each Kanam being 20 inch long and 28 inch wide.	Rs. 0-4-0 per Kanam	10 to 12 days for 44 Kanams.

7	Silk "Angavasthrams" (Dhup-pates).	2½ yards long and 45 inch wide .	Ra. 7-0-0 to 8-0-0 per Vaesthram .	2 days per Vasthrams.
8	Silk "Makutams"	4 yards long and 48 inch wide .	Ra. 9-0-0 to 10-0-0 per Makutam .	4 days per Makutam.
9	Silk Handkerchiefs	18 inch long and 18 inch wide .	Ra. 0-5-0 per kerchief (per yard).	1 day for 4 kerchiefs.
10	Silk Shirtings	Each piece being 50 yards long and 36 inch wide.	Rc. 1-8-0 to 1-12-0	30 days for piece.
11	Plain Silk Cloth	Each piece being 60 yards long and 36 inch wide.	Rc. 1-6-0 per yard	30 days per piece.
12	Cotton Lungis with Silk borders .	8 yards long and 54 inch wide (pair).	Ra. 6-0-0 per pair	4 days per pair.
13	Cotton Lungis with mercerised Cotton border.	8 yards long and 50 to 54 inch wide (pair).	Ra. 2-0-0 to 3-0-0 per pair . .	Do.

14. Spun silk is used in weaving sarees. It is not generally handled by the handloom weavers in the State except by about 20 weavers only at Dodballapur and Holenarasipur where its use is found to be restricted to the production of sarees only. Spun silk is not used by handloom weavers since they cannot compete with the spun silk products of power looms.

15. More than 90 per cent. of the handloom weavers obtain their silk supply through middlemen. In some of the weaving centres, however, as Chikkanaikanhalli and Chikballapur some of the weavers obtain their silk supply direct from the reelers.

16. Yes. Credit in the shape of raw materials up to the value of Rs. 100 per loom is usually given for a period of one month free of interest and thereafter interest is charged at 8 to 12 per cent. per annum. The value of materials advanced depends on the financial standing of the weaver and his ability to produce goods of the requisite quality and design within the given time.

17. Silk merchants sell direct to weavers in Bangalore and Dodballapur which are the biggest weaving centres in the State. In the case of other remote centres, the weavers obtain their silk supplies through retailers.

18. Mysore silk is superior to the imported silk in lustre, strength, tenacity and durability. The silk merchants are fully aware of the superiority of the local silk to the imported variety in these respects.

19. At present there is no regular system of grading or sorting of Charka silk.

20. Yes. This system is in vogue. The conditions generally imposed are that the weaver should weave the articles according to given pattern and design and deliver the same within the time stipulated.

21. There has been no marked improvements to be recorded under this head.

22. No improvements have been made in the methods of re-reeling.

23. The position remains the same even to-day. Artificial silk yarn is now being imported into the State in larger quantities than before and it is learnt that more than 75 per cent. of the weavers who are now engaged in weaving cotton goods (mixed with artificial silk yarn) were formerly producing either pure silk goods or cotton goods mixed with pure silk. This change over is reported to be due to the extreme cheapness of artificial silk and the inability on the part of the weavers to invest heavy capital required for producing and marketing pure silk goods.

24. The handloom weavers who produce pure silk goods are hit very hard on account of competition from spun silk goods produced on power looms. They are of the opinion that the existing rates of duty on spun silk are not at all sufficient to protect their products and that unless the duties are enhanced, it would not be possible for them to secure a fair price for their articles.

25. A statement is appended.

26. The present rates of duty on imported silk fabrics, artificial silk goods and mixtures have not given any relief to the weavers. Though there is no direct competition from Foreign countries so far as silk goods especially sarees produced by the handloom weavers are concerned, still the imported fabrics have indirectly affected the demand for handloom goods inasmuch as the consuming public have now been going in mostly for the imported fabrics on account of their comparative cheapness.

27. No. But a large number of power looms have come into existence since 1933. It is ascertained that the number of power looms manufacturing pure silk goods in the State has gradually increased from 139 at the beginning of the year 1933 to 189 at present. These power looms use both Indian and imported raw material. In addition there are nearly 400 power looms using spun silk, cotton yarn, etc., and the number is gradually increasing.

28. A statement is appended giving the information.

The weavers are paid per piece and not per day. The rates at which they are paid vary according to the nature and size of the finished article and the amount of labour and skill involved in producing the same.

29. It is seen from the report on co-operative societies in Mysore for the year 1936-37 that there are at present 61 Weavers' Societies in the State and that a good many of these societies (with the exception of the Weavers Co-operative Society, Ltd., Bangalore city and one or two other societies) are in a languishing condition and have departed largely from their primary object of the supply of raw materials and the sale of finished cloth, notwithstanding the efforts made by the co-operative department to place their working on a sound footing. It is ascertained that the above department have contemplated to remodel the Weavers' Societies as agencies for the supply of raw materials and the marketing of finished products, with a central agency at Bangalore with a view to help the industry from its present depressed conditions and that necessary action is being taken in this direction.

30. It is learnt that about 75 per cent. of the manufactured articles produced by the handloom weavers in the State are sold within the limits of the State and that the remaining 25 per cent. is exported to several places in the neighbouring districts of the Madras and Bombay Presidency, the principal markets being Madras and other consuming centres in Southern India such as Kumbakonam, Kanchi, Karaikudi, Salem, Trichy, Ananthapur, Bellary, etc., Bangalore is the important distributing centre and almost all the weavers in and around Bangalore sell their products to the Bangalore merchants and the latter export the same to several places outside the State. In the remote centres of weaving, the weavers sell their products to the local merchants direct or take the goods themselves to the surrounding villages for effecting sales.

31. There is always a definite demand for natural silk as a quality product. But the severe competition from substitutes such as spun silk, rayon, etc., is having a depressing effect on the prices of pure silk goods.

32. As regards sources of supply of raw silk, it is learnt that Chinese and Japanese silks are obtained by the Twisting Factories and Silk Koties at Bangalore through the importers at Bombay and Madras, Kashmir filature silk from the firms in Kashmir and Mysore Charka-reeled silk from the reelers in the several reeling centres in the State. The weavers obtain their silk supply from these factories and Koties direct or through retailers. In the Silk Weaving Centres as Chiknayakanhalli and Chikballapur, the weavers obtain their supplies of Mysore Charka-reeled silk direct from the reelers also.

The total quantity of raw silk consumed in the several handloom weaving centres in the State is about 200,000 lbs. per year.

33. Nil.

34. No.

STATEMENT B. QUESTION 28.

Statement showing the approximate cost of manufacture of typical articles of silk cloth under various heads in the important weaving centres in the State.

No.	Name of Weaving Centre and description of cloth.	Cost of raw materials.	Twisting and winding charges.	Dyeing charges.	Weaving charges.	Cost of labour.	Other charges.	Total cost.
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1	Bangalore. (Solid border silk sarree with lace (Chitkambi) 9 yds. long and 44" wide, weighing 80 tolas.)	15 14 0	1 0 0	1 0 0	6 0 0	1 2 0	0 1 0	25 1 0
2	Tumkur. (Solid border silk sarree with lace (Chitkambi) 9 yds. long and 44" wide, weighing 80 tolas.)	15 12 0	1 4 0	1 4 0	6 0 0	1 2 0	0 2 0	25 8 0
3	Chikmagalur. (Solid border silk sarree with lace (Chitkambi) 9 yds. long and 44" wide, weighing 80 tolas.)	16 2 0	1 0 0	1 0 0	6 0 0	1 2 0	0 2 0	25 6 0
4	Davangore. (Silk and Cotton mixed sarree 9 yds. long and 44" wide, weighing 70 to 72 tolas.)	9 8 0	..	2 0 0	4 0 0	1 4 0	0 4 0	17 0 0
5	Holalmuru. (Silk 'Angarastam' 2½ yds. long and 45" wide, weighing 28 tolas.)	3 8 0	0 10 0	1 6 0	1 0 0	0 6 0	..	6 14 0
6	Holmarnapur. (Cotton Dhories with silk border 20 yds. long and 52" to 54" wide) (5 Dhories)	6 6 0	0 9 0	1 1 0	2 12 0	0 15 6	..	11 11 6
7	Anekal. (Solid border silk sarree with lace (Chitkambi) 9 yds. long and 44" wide, weighing 80 tolas.)	15 8 0	1 0 0	1 0 0	6 0 0	1 4 0	0 2 0	24 14 0

8	Kankanhalli. (Cotton sarees (5 sarces) with silk border each saree being 8½ yds. long and 42" wide.)	11	6	0	0	10	6	0	12	0	3	12	0	1	5	0	0	3	3	18	0	9
9	Kodiyal. (Filature silk saree with 2" lace flower border —9 yds. long and 46" wide, weighing 50 tolas.)	23	4	0	1	8	0	0	12	0	6	0	0	0	14	0	0	2	0	32	8	0
10	Dommasandra. (Solid border silk saree with lace (Chit-kambi) 9 yds. long and 44" wide, weighing 60 tolas.)	16	6	0	1	0	0	1	0	0	4	0	0	1	4	0	..			23	10	0
11	Magadi. (Solid border silk kanam with extra warp figure in lace—27 yds. long and 32" wide (48 Kanama.)	19	9	0	0	10	0	1	4	0	0	8	0	3	6	0	0	2	0	32	15	0
12	Tirumalai. (Solid border silk saree 8½ yds. long and 44" wide with extra warp figure in mercerised cotton.)	9	8	0	1	0	0	1	0	0	4	0	0	1	2	0	0	2	0	16	12	0
13	Kudur. (Solid border silk saree 8½ yds. long and 44" wide with extra warp figure in mercerised cotton.)	9	12	0	0	8	0	1	0	0	3	8	0	1	0	0	0	2	0	15	14	0
14	Dodballapur. (Filature silk saree 9 yds. long and 46" wide with 1" lace flower border—weighing 40 tolas.)	14	12	0	1	8	0	0	10	0	3	8	0	0	11	8	0	2	0	21	3	8
15	Chickballapur. (Solid border silk saree with extra warp and weft figure (Bale saree) in lace.)	17	10	0	1	6	0	1	0	0	8	0	0	1	1	6	0	2	0	29	3	6
16	Gudlibanda. (Solid border silk saree (Dharmavaram pattern) 9 yds. long 44" wide.)	11	2	0	1	0	0	1	0	0	5	0	0	1	2	0	0	8	0	19	12	0

N. B.—The description of typical articles of silk cloth produced in several Weaving Centres for which details of cost of manufacture are furnished is noted against each Centre.

STATEMENT—

Statement showing annually the variations in cost price, sale price and weaver's wages

No.	Name of Weaving Centre and description of the cloth.	1934.			1935.		
		C. P.	S. P.	W. W.	C. P.	S. P.	W. W.
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
	<i>Bangalore.</i>						
1	(Solid border silk saree with lace, "Chitkambl"—9 yds. long, 44" wide.)	27 9 0	28 0 0	8 0 0	27 0 0	28 0 0	8 0 0
	<i>Tumkur.</i>						
2	(Solid border silk saree with lace, "Chitkambl".)	28 8 0	30 0 0	9 0 0	28 0 0	28 0 0	8 0 0
	<i>Chicknayakanhalli.</i>						
3	(Solid border silk saree with lace.)	27 2 0	30 0 0	7 0 0	26 12 0	28 0 0	7 0 0
	<i>Davangere.</i>						
4	(Silk mixed cotton saree—8 yds. long, 44" wide, weighing 70 to 72 tolas.)	20 0 0	25 0 0	6 0 0	18 0 0	20 0 0	4 8 0
	<i>Harihar.</i>						
5	(Cotton mixed art silk Kanams (44 Kanams)—28" width.)	11 4 0	13 12 0	3 8 0	11 4 0	13 12 0	3 8 0
	<i>Molakalmuru.</i>						
6	(Silk Angavastram—2½ yds. long, 45" wide, weighing 28 tolas.)	7 6 0	8 8 0	1 8 0	7 2 0	8 0 0	1 4 0
	<i>Hosandurga.</i>						
7	(Cotton saree mixed with art silk.)	1 14 0	2 4 0	0 10 0	1 12 0	2 0 0	0 9 0
	<i>Holenarsipur.</i>						
8	(Cotton dhoties with silk border—length 20 yds. width 52" (5 dhoties).)	12 12 0	15 0 0	3 8 0	12 8 0	3 12 0	3 4 0
	<i>Kikkeri.</i>						
9	(Cotton dhoties with M. C. border—20 yds. length, 40" width (7 dhoties).)	4 12 0	5 4 0	1 8 0	4 8 0	5 1 0	1 4 0

N. B.—(1) C. P.—C. at price. S. P.—Sale price
(2) The typical articles of cloth for which

QUESTION 25.

for typical articles of cloth in important Weaving Centres in the State since 1934.

1936.			1937.			1938.		
C. P.	S. P.	W. W.	C. P.	S. P.	W. W.	C. P.	S. P.	W. W.
Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
26 0 0	27 0 0	7 0 0	25 1 0	26 0 0	6 0 0	25 1 0	26 0 0	6 0 0
27 0 0	28 0 0	8 0 0	26 8 0	27 0 0	7 0 0	25 8 0	27 0 0	6 8 0
25 4 0	27 0 0	6 0 0	24 12 0	26 0 0	8 0 0	25 8 0	25 0 0	8 0 0
18 0 0	20 0 0	4 8 0	17 0 0	18 0 0	4 0 0	17 0 0	18 0 0	4 0 0
10 8 0	11 0 0	2 12 0	10 8 0	11 0 0	2 12 0	10 8 0	11 0 0	2 12 0
6 14 0	7 0 0	1 0 0	6 14	7 0 0	1 0 0	6 14 0	7 0 0	1 0 0
1 10 0	1 12 0	0 8 0	1 9 0	1 10 0	0 7 0	1 8 0	1 8 0	0 6 0
12 0 0	12 8 0	2 12 0	11 12 8	12 8 0	2 12 0	11 12 8	12 8 0	2 12 0
4 6 0	4 18 0	1 2 0	4 4 0	4 9 0	1 0 0	4 4 0	4 8 0	1 0 0

W. W.—Weaver's wages.
statistics are furnished are noted against each centre.

STATEMENT—

Statement showing annually the variations in cost price, sale price and weaver's wages

No.	Name of Weaving Centre and description of the cloth.	1934.			1935.		
		C. P.	S. P.	W. W.	C. P.	S. P.	W. W.
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
	<i>Kodiyal.</i>						
10	(Filature silk saree with lace flower border of 2" — 9 yds.)	36 0 0	60 0 0	9 0 0	35 0 0	48 0 0	8 8 0
	<i>Kankanhalli.</i>						
11	(Silk mixed cotton saree (5 sarees).)	18 0 0	22 8 0	3 12 0	18 0 0	22 8 0	3 12 0
	<i>Anekal.</i>						
12	(Solid border silk saree with lace border—9 yds. long, 44" wide.)	26 8 0	28 0 0	7 8 0	28 8 0	28 0 0	7 8 0
	<i>Dommasandra.</i>						
13	(Solid border silk saree with lace—8 yds. long, 44" wide.)	27 12 0	35 0 0	8 0 0	26 12 0	33 0 0	7 0 0
	<i>Magadi.</i>						
14	(Solid border silk Kanams (48 Kanams)—27 yds. long, 32" wide.)	38 0 0	51 0 0	12 0 0	38 0 0	48 0 0	12 0 0
	<i>Tirumalai.</i>						
15	(White extra warp figured solid border silk saree—8½ yds.)	18 12 0	20 6 0	6 0 0	18 4 0	19 0 0	6 8 0
	<i>Kudur.</i>						
16	(Solid border silk saree with white extra warp figure.)	17 14 0	20 12 0	5 8 0	17 6 0	18 12 0	6 0 0
	<i>Dodballapur.</i>						
17	(Filature silk saree with 1" lace border—9 yds. long, 46" wide.)	23 10 0	32 0 0	5 0 0	23 10 0	29 0 0	5 0 0
	<i>Chickballapur.</i>						
18	(Silk saree with extra warp and welt figure borders.)	32 4 0	40 0 0	11 0 0	31 4 0	37 0 0	10 0 0
	<i>Gudibanda.</i>						
19	(Dharmavaram pattern silk saree—9 yds. long, 44" wide.)	22 8 0	30 0 0	8 0 0	21 8 0	25 0 0	7 0 0

N. B.—(1) C. P.—Cost price. S. P.—Sale price.

(2) The typical articles of cloth for which

QUESTION 25—contd.

for typical articles of cloth in important Weaving Centres in the State since 1934—contd.

1936.			1937.			1938.		
C. P.	S. P.	W. W.	C. P.	S. P.	W. W.	C. P.	S. P.	W. W.
Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
33 8 0	47 0 0	7 0 0	33 0 0	40 0 0	6 8 0	32 8 0	35 0 0	6 0 0
18 0 0	22 8 0	3 12 0	18 0 0	22 8 0	3 12 0	18 0 0	21 4 0	3 12 0
26 8 0	27 0 0	7 8 0	26 0 0	27 0 0	7 0 0	24 14 0	25 0 0	6 0 0
25 12 0	32 0 0	6 0 0	24 12 0	27 0 0	5 0 0	23 10 0	24 0 0	4 0 0
34 15 0	36 0 0	10 0 0	33 15 0	34 0 0	0 0 0	32 15 0	33 0 0	8 0 0
17 12 0	18 6 0	5 0 0	16 12 0	16 12 0	4 0 0	16 12 0	10 6 0	4 0 0
16 14 0	17 12 0	4 8 0	16 6 0	16 12 0	4 0 0	15 14 0	15 12 0	3 8 0
83 2 0	28 0 0	4 8 0	22 2 0	27 0 0	4 0 0	21 4 0	23 0 0	3 8 0
80 4 0	34 0 0	0 0 0	30 4 0	32 0 0	0 0 0	29 3 6	30 0 0	8 0 0
20 8 0	24 0 0	6 0 0	20 8 0	24 0 0	6 0 0	19 12 0	22 0 0	5 0 0

W. W.—Weaver's wages.
 statistics are furnished are noted against each centre,

*Statement showing details of cost of production in 1938-39 (July-1938) for various kinds of hand-woven goods (Silk goods only) in the Mysore State.
(Handed in at the time of oral evidence.)*

Sl. No.	Class of cloth (typical) and name of the Centre in which it is produced.	Dimensions.	Material (kind of material used and quantity).	Cost.						Sale price.	Production per day.	Weavers' earning per day.
				Raw material.	Winding and Twisting.	Dyeing.	Weaving.	Other Charges.	Total.			
				Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs.	Yds.	Rs. A. P.
1	Saree. (Gudi-bazic-Kolar District.)	44" × 9 yds.	Mysore country silk (superior) 2½ lbs. raw silk	11 2 0	1 0 0	1 0 0	5 0 0	1 10 0	19 12 0	22/-	1	0 5 4
2	Saree with gold lace border. (Bangalore.)	44" × 9 yds.	Japan silk and Surat Gold lace—2 lbs. raw silk and ½ lb. gold lace.	15 14 0	1 0 0	1 0 0	6 0 0	1 3 0	25 1 0	26/-	1	0 6 5
3	Kanam (cloth for holice for women) with gold lace. (Magadi, Bangalore District.)	32" × 27 yds. (piece of 48 Kanams).	China and Mysore country silk and Surat gold lace—1½ lbs. of China twisted silk for warp, 2½ lbs. of Mysore raw silk for weft and ½ lbs. of Surat Gold lace.	19 9 0	0 10 0	1 4 0	8 0 0	3 8 0	32 15 0	33/-	1½	0 4 3
4	Vastram or Dupatta—Molai almuru, Chitaldrug District.	45" × 2½ yds.	Mysore Country silk—42 tolas (1½ lbs.) raw silk.	3 8 0	0 10 0	1 6 0	1 0 0	0 6 0	6 14 0	7/-	1½	0 8 0

(3) *Letter from the Director of Industries and Commerce in Mysore, Bangalore, No. C1-412/37-38, dated the 22nd July, 1938.*

I have the honour to forward herewith four copies of replies of the Government Silk Weaving Factory, Mysore, to the questionnaire issued by the Indian Tariff Board regarding silk and artificial silk goods manufacturers, for favour of information.

GOVERNMENT SILK WEAVING FACTORY, MYSORE.

Replies to the questionnaire for silk and artificial silk goods manufacturers.

1. This is a Government concern and was established in the year 1931.

2. The Factory is meant for manufacturing only pure silk fabrics out of Mysore Silk.

The present capacity of the Weaving Factory is as follows:—(For a year of about 300 working days of 9 hours a day.)—

To manufacture pure silk Georgette, Crepe, Fancy Georgette and Crepe Georgette sarees with laced border, interwoven laced fabrics, suitings, shirtings, ties, etc., as per policy of the Factory.

About 60,000 yards per year.

Average per day of 9 hours.—About 200 yards.

3. The actual output of pure silk goods only of the Factory since 1933-34 is detailed hereunder:—

Year.	Output.
	Yards.
1933-34	38,950
1934-35	41,670
1935-36	45,250
1936-37	52,080
1937-38	53,360

4.

Name of Fabric.	Average percentage of the total output which each fabric represents for the years.				
	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
1. Georgette	66.0	56.0	42.4	33.2	47.2
2. Crepe-de-Chine	24.0	18.6	34.5	19.4	24.6
3. Fancy Georgette and Crepe. . . . .	..	..	..	17.2	1.4
4. Laced Georgette and Crepe and Sarees.	3.0	5.5	8.6	13.6	12.7
5. Interlaced silk fabrics . . . . .	..	..	0.9	9.2	11.3
6. Satins	3.5	0.7	4.8	1.3	0.7
7. Costings	3.0	5.6	1.9	1.7	0.9
8. Shirtings	0.5	5.0	1.0	2.3	0.5
9. Ties	Negligible	Quantity.	1.0	0.3	0.5
10. Vallies and Dhothies . . . . .	..	0.2	0.7	1.8	..
11. Kerchiefs . . . . .	..	7.7	4.1	..	..
12. Ponge . . . . .	..	0.7	..	..	..

5. The annual consumption of Pure Mysore Silk only since 1933-34 is detailed hereunder:—

Year.	Annual Consumption.
	lb.
1933-34	5,555
1934-35	7,856
1935-36	7,265
1936-37	8,463
1937-38	9,183

The Factory is not using any other silk except Mysore Silk. The silk that is used in the Factory is indigenous.

(b) Silk of foreign origin is not used.

6. (a) Weight of raw silk required per yard:—

	Tolas per yard.
Georgette	6.3
Crepe-de-Chine	7.6

(b) The Factory does not manufacture mixed goods.

8. For one pound of finished goods, 1.54 lbs. of raw silk is required.

9. As this Factory manufactures only pure silk goods out of Pure Mysore Silk, the prices cannot strictly be compared with foreign imported fabrics, which are not similar in quality.

10. The machinery is suitable to manufacture silk both out of Indian and Imported raw silk.

11. The raw silk is delivered in the shape of hanks, which are soaked in a soaking solution so that it may be easier to handle in the subsequent operations.

After soaking, the silk is dried in the shade and is passed on to the winding machines where it is wound on to bobbins. Then the silk is cleaned by passing the single yarn through slit in order to remove floss, waste, out ends, knots, etc. Then the cleaned yarn is passed on to doubling machine and finally twisted and steamed to set the twist. Then the yarn is wound on warpers' bobbins and passed on to the warping machine.

A weavers' beam is made by the warping machine, then it is drawn through healds and reed and finally mounted on the loom where it is woven into a cloth.

The cloth comes next to the examination table to be examined and finally passed on to the dyeing and finishing section.

In the Dyeing and Finishing Section, the raw cloth is degummed, washed, dried and then it is dyed (if need be) and finished, examined, weighed and packed ready to be sent to the market.

Year.	Total number of employees.	Wages paid. Rs.
14. 1933-34	92	12,755
1934-35	94	14,036
1935-36	104	13,745
1936-37	105	14,214

Facilities are being given to train Indian apprentices free.

15. In all the Indian markets the foreign competition is felt very keenly.

17. For the year 1936-37 the figures stood as follows:—

Head of Account.	Amount. Rs.
1. Leases . . . . .	...
2. Lands and Buildings	62,658
3. Plant and machinery	1,31,084
4. Furniture	1,610
5. Equipment	6,200
6. Tools and plant	815
7. Water works	8,835
Total	2,11,202

18. Buildings	70,000
Plant and machinery	1,80,000
Tools and Plant, Water Works, etc.	26,000
Total	2,76,000

19. (a) The amount written off for depreciation since 1933-34 is detailed hereunder:—

Year.	Amount written off Rs.
1933-34	11,920
1934-35	11,920
1935-36	11,920
1936-37	17,591

(b) It has not been possible to create any Reserve Fund.

21. Copies of Balance Sheets attached. [Not printed.]

22. (a) Interest on working capital—

	Rs.
1933-34	2,437
1934-35	3,016
1935-36	3,562
1936-37	3,778

(b) Depreciation—

	Rs.
1933-34	11,920
1934-35	11,920
1935-36	11,920
1936-37	17,591

(c) *Head Office expenses—*

	Rs.
1933-34	2,520
1934-35	2,620
1935-36	2,750
1936-37	5,077

(d) *Commission paid to agents—*

	Rs.
1933-34	3,374
1934-35	5,411
1935-36	4,862
1936-37	3,792

(4) *Letter from the Director of Industries and Commerce in Mysore, Bangalore, No. C1-412/37-38, dated the 22nd July, 1938.*

I have the honour to forward herewith three copies of the replies of the Mysore Government to the General Questionnaire issued by the Indian Tariff Board.

Replies to the General Questionnaire issued by the Indian Tariff Board.

1. There has been no progress but on the other hand there has been a progressive decline in the area under mulberry since protection was granted in 1934. The area under mulberry in 1933-34 was 32,869 acres and the quantity of silk produced was 788,800 lbs. Now the area in 1937-38 has gone down to 26,500 acres but the production has risen to about 795,000 lbs. This result is due to the improvements effected in the industry by the Department to prevent losses of crops and to secure the maximum yield per unit area.

The industry was being practised in about 2,500 villages in 1931-32 while now it is practised in about 2,000 villages.

Sericulture is not practised as the main industry in the State. It is practised by small agriculturists as a subsidiary occupation and affords profitable and steady employment throughout the year for women and children at home and gives occupation to the ruiyats during agricultural off-seasons. Cultivation of mulberry and rearing of worms is a combined operation. There are no families who are entirely dependent upon mulberry cultivation only and silk-worm rearing only. The reeling of silk, the marketing of silk, and the weaving of silk may be practised as independent occupations and even in this case the owners of small reeling establishments do not take up reeling as the main industry as they are also agriculturists.

Cultivation of mulberry, rearing of silk-worms, reeling of silk, marketing of silk and weaving of silk give occupation to a large number of families. In addition to the people engaged in the industry a large number of families find employment in such subsidiary occupation connected with Sericulture as plucking of leaves, digging, weeding, pruning and manufacture of appliances in sericultural villages. It is difficult to make an accurate estimate of the number of families directly or indirectly benefited by this industry but it may be safely said that in sericultural villages there is hardly any family which does not contribute to the industry at one stage or another.

There are about 26,500 acres under mulberry now. A family has on an average $\frac{1}{2}$ to $\frac{3}{4}$ acre of mulberry. On this basis, about 40,000-45,000 families are directly engaged in silk-worm rearing and mulberry cultivation. An equal number of families are affected by the industry indirectly, i.e., they find occupation in digging of gardens, picking of leaves, etc. There are about 2,500 charkas in the State at present and about 7,500-8,000 families are engaged in the reeling industry. Trading in silk, silk waste, pierced cocoons, etc., give occupation to about 6,000 families. Weaving and its connected operations give occupation to about 13,500 families. The total number of families directly and indirectly benefited can thus be estimated to be about 117,000 families.

2. A description of the organisation of the industry with reference to management, finance and marketing is given on pages 2 to 5 of the Note appended to the Memorandum to which reference is invited.

3. The maximum attainable under the present organisation is 119 lakhs of pounds of raw cocoons and about 10 lakhs of pounds of charka silk during 1937-38, the acreage under mulberry being 26,500.

Statement showing the estimated actual production and values of cocoons and silk:—

Year.	Area under mulberry in acres.	Quantity of cocoons in lakhs of lbs.	Value of cocoons in lakhs of rupees.	Quantity of silk in lakhs pounds.	Value of silk in lakhs of rupees.
1933-34 . .	32,870	102.0	21.25	7.88	31.00
1934-35 . .	30,299	98.0	22.70	7.55	29.71
1935-36 . .	28,528	96.0	22.00	7.41	28.19
1936-37 . .	25,132	91.0	24.20	7.03	28.12
1937-38 . .	26,500	103.0	23.20	7.95	37.99

The estimated maximum production is calculated taking into consideration that the rainfall was normal, all the crops harvested were successful and market for cocoons and silk fair and steady. The variations between the estimated maximum production and the actuals are due to scanty and untimely rains, and decline in the prices for cocoons and silk.

The increased value of raw silk and cocoons in 1936-37 and 1937-38 is due to the temporary increase in the prices of these articles during a few months in those years. (Vide paragraph IX at page 9 of the Memorandum.)

4. The silk-worm rearers in Mysore, generally rear the Mysore race of worms. At the outset, it is necessary to point out that there is a difference between the total silk content and the reelable silk content. The total silk content consists of the entire shell of the cocoon after the pupa is removed. Out of this shell the floss on the top and the membrane in the interior, though silk in composition, is unreelable and constitutes the reeling waste of commerce. The reelable portion consists of a continuous filament varying in length from 300 to 750 yards according to race and quality. There are also seasonal variations. The average length of filament in Mysore cocoons is about 370 yards. What follows should be read in the light of above explanation. The silk content of the Mysore cocoons is about 12.3 per cent. Hybrids between Pure Mysore and Chinese and Japanese races of worms supplied by the Department of Sericulture are also being reared by the raiyats. The silk content of cross-breed cocoons varies between 13.2 and 14.6 per cent. Pure Japanese and Chinese races are reared by the Department of Sericulture in Government Silk Farms for

preparing hybrid layings. The following statement gives detailed information regarding the silk content of the various races reared in the Government Farms in Mysore:—

Race.	Total rearing period.	Percentage of silk content.
	Days.	
1. Pure Mysore	30	12·3
2. Chinese Univoltines	27	14·3
3. Chinese Bivoltines	27	13·1
4. Japanese Univoltines	27	14·6
5. Japanese Bivoltines	28	14·2
6. French Univoltines	27	13·2
7. Mysore × Chinese Univoltines F_1	26	13·2
8. Mysore × Chinese Bivoltines F_1	26	13·7
9. Mysore × Japanese Univoltines F_1	26	14·1
10. Mysore × Japanese Bivoltines F_1	26	14·6
11. Mysore × French Univoltines F_1	26	13·2

5. Mysore has a distinct race of silk-worms. These worms are multivoltine, feed on mulberry leaf and produce greenish cocoons, which yield a beautiful lustrous silk of excellent quality. The silk-worm reared in Mysore is indigenous to Mysore. Hybrids between Mysore and Pure Japanese or Chinese races are also being reared by the sericulturists and these form at present about 25 per cent. of the total seed supply. The cocoons produced by these hybrids are used for reeling only. The Pure Chinese and Japanese races used for the preparation of hybrid layings are univoltines and bivoltines. These races are bred pure by the Sericultural Department for seed purposes, and small quantities of fresh seed are also imported from time to time for reinforcing and replenishing the stock. Experiments are also being conducted to rear Pure French and Italian silk-worms. The Pure Foreign races are not reared by sericulturists except for seed purposes as it is found that the rearing of foreign races requires special facilities and technique. Besides, the yield of cocoons from pure foreign races is low compared with that of Pure Mysore and of cross-breeds.

6. The sericulturists do not construct separate rearing houses—the silk-worms are reared in a portion of the dwelling house. The sericulturists, of late, have taken to improvements of rearing houses by having suitable ventilation. The following appliances are necessary for rearing silk-worms:—

- (1) Stands.
- (2) Trays.
- (3) Chandrikes.
- (4) Bamboo baskets.
- (5) Chopping knives and boards.
- (6) Gunny bags or hessian cloth.
- (7) Lantern.
- (8) Rat trap.
- (9) Earthen or iron pots for keeping stands.

The stands are made of jungle wood supports, with bamboo cross bars, each stand holding 10 to 12 trays of silk-worms. The trays and chandrikes are entirely made of bamboo. All these appliances are available locally. The raiyat generally does not have the full complement of chandrikes

necessary for his use. In addition to his own, he hires a few from his neighbours paying a rental of one to two annas per day per chandrike, the rate depending upon demand. There has been no appreciable change in the cost of the above equipment.

The cost of equipment for rearing two ounces of seed (from leaves of about three-fourths of an acre of mulberry) at a time varies from Rs. 40 to 16s. 6d according to localities.

	Years.
Stands last between	5 and 8
Trays last between	2 and 3
Chandrikes last between	3 and 5
Knives last between	1 and 2
Chopping Boards between	1 and 2

Baskets and gunny bags or other cloth need renewal once in six months. The charges on appliances for rearing silk-worms from an ounce of seed vary from Rs. 1 to Rs. 1-8 according to locality and other conditions. Improvements have been effected by some sericulturists under the following:—

- (1) Provision of better ventilation.
- (2) Improvement of chandrikes by having the spirals closer and equidistant to minimise quantity of floss during spinning of cocoons.

More improvements could not be effected on account of low prices of cocoons obtained.

7. Statement showing the results of rearing silk-worms of different races in Government Silk Farms:—

Race.	Total rearing period (days).	Number of cocoons, per lb.	Length of filament in yards.	Denier.
1. Puro Mysore	30	550	450	1-9
2. Chinese Univoltines	27	490	600	2-2
3. Chinese Bivoltines	27	488	630	1-8
4. Japanese Univoltines	27	475	650	2-4
5. Japanese Bivoltines	28	503	625	2-4
6. French Univoltines	27	400	690	2-0
7. Mysore x Chinese Univoltines F_1	26	486	660	2-0
8. Mysore x Chinese Bivoltines F_1	26	488	660	2-0
9. Mysore x Japanese Univoltines F_1	26	483	620	1-86
10. Mysore x Japanese Bivoltines F_1	26	481	750	2-0
11. Mysore x French Univoltines F_1	26	384	690	2-4

8. There has been no change in the method of rearing. The following improvements have, however, been effected by an appreciable number of sericulturists:—

- (1) *Brushing of eggs.*—Prior to hatching to ensure uniform hatching, by gentle stimulation.

- (2) *Feeding of worms.*—The intervals between feeds are so adjusted that the worms are not starved unnecessarily. Uniform thin and frequent feedings are given to assure fresh leaves at every feed and prevent wastage of leaves. In the 'Chawki' stage more feeds are given than in the adult stages and the raiyats have realised that the greatest attention on their part is necessary in the earlier stages of rearing to ensure full growth of worms.
- (3) *Spacing.*—Overcrowding of worms in trays is avoided and the idea of economising leaves by overcrowding of worms is gradually disappearing. The rearers have realised the advantages of giving adequate spacing inasmuch as the growth of worms is more satisfactory and better crops are harvested.
- (4) *Cleaning.*—The use of paddy husk in changing beds of silk-worms is found to be very beneficial in every respect as the cleaning process is easier and the loss of worms is prevented as the young worms do not get mixed up in the litter. The husk absorbs moisture and minimises bacterial activity.
- (5) *Mounting.*—The 'Chandrikes' are made with closer spirals to prevent wastage of silk and formation of irregular shaped cocoons and care is taken to see that urination is prevented by properly adjusting the 'Chandrikes' to allow the urine to drop down and not on the cocoons. The worms are not overcrowded on 'Chandrikes' with the result the incidence of double cocoons is minimised. The diseased worms are usually picked out from 'Chandrikes' which prevent the staining of good cocoons.
- (6) *Harvesting of cocoons on the fourth day after mounting, i.e., after the worms have turned to pupæ is being gradually adopted.*

9. The silk-worm generally reared by sericulturists is indigenous to Mysore. Hybrids between Mysore and Pure Japanese or Chinese races are also being reared increasingly by the sericulturists. The Pure Chinese and Japanese races are reared by the Sericultural Department and under the supervision of the Department by selected seed rearers for seed purposes. Small quantities of fresh seed of these races are imported from time to time for re-inforcing and replenishing the stock.

The production of seed is organised separately from the production of reeling cocoons. The organisation for supply of seed may be classified as follows:—

- (1) Seed Campaign.
- (2) Chawki Rearing.
- (3) Government Grainages.
- (4) Aided Grainages.
- (5) Sericultural Co-operative Societies.

Chawki Rearing.—In some parts of the State there is a class of silk-worm rearers which specialises in procuring seed cocoons or disease-free layings and rearing young worms till the end of first moult. The chawki worms are sold to the sericulturists who rear the worms for producing reeling cocoons. There are obvious advantages in this system as the 'chawki' rearer pays special attention to young worms when great care is necessary to avoid losses in the further processes of rearing. Trained staff of the Department is in intimate touch with these people and guides them in their work.

For more detailed description of the organisation for the production of seed, kind attention is invited to the "Note on the Sericultural Industry and its Organisation," appended to the "Memorandum."

The cost of production of one ounce of disease-free layings in Government Grainages is noted below:—

Year.	Cost of production per ounce of disease-free layings.	Sale price of one ounce of Mysore layings.	Sale price of cross-breed layings ounce.
	(Mysore and Cross-breed combined.)		
	Rs. a. p.	Rs. a. p.	Rs. a. p.
1936-37 . . .	1 14 9	0 11 2	1 6 5

The cost of production of one ounce of disease-free layings in Aided Grainages is noted below:—

Year.	Cost of production per ounce of disease-free layings.	Sale price of one ounce of Mysore layings.	Sale price of cross-breed layings per ounce.
	Rs. a. p.	Rs. a. p.	Rs. a. p.
1936-37 . . .	1 6 5	0 11 2	1 6 5

N.B.—The aided grainages receive a subvention of Rs. 5 per 1,000 disease-free layings from Government or 11.2 annas per ounce. In the aided grainages the cost of production does not include charges on personal supervision, depreciation on buildings, equipment, etc. If all these are included, the cost would be round about the same figure as in Government Grainages.

10. No legislation has yet been passed penalising the use of unexamined seed, but the use of examined seed or disease-free seed is encouraged by all possible means. The production of seed cocoons in seed cocoon producing areas is controlled as a result of the systematic work amongst the selected seed rearers. The number of Government Grainages has been increased as also the number of aided grainages. The supply of disease-free layings from all the institutions under the control of the Sericultural Department has been increased from 32 lakhs disease-free layings in 1931-32 to 100 lakhs of disease-free layings in 1937-38. The output of seed cocoons by selected seed rearers has been increased from 250 lakhs in 1931-32 to 900 lakhs in 1937-38.

The sericulturists in Mysore have been made to realise the advantages of using disease-free layings by persuasion, demonstration and experience.

A draft bill for controlling the seed supply and penalising the use of unexamined seed has been prepared by the Board of Sericulture and the Mysore Silk Association has been educating the sericulturists to realise the advantages of such a measure.

11. The Mysore race of worms is multivoltine. The Japanese and Chinese races reared in the farms are univoltines and bivoltines. Five to six crops of multivoltines are reared in a year. By adopting artificial hatching methods of eggs, five to six crops of univoltine and bivoltine races also are reared in the Government Silk Farms.

An ounce of Mysore silk-worm seed gives about 42,000 worms. Per acre of rainfed garden per year, the quantity of seed required varies from 6 to 8 ounces and per acre of irrigated garden, the quantity varies between 9 and 11 ounces per year.

The total quantity of seed required during 1937-38 amounts to about 210,000 ounces (about 293 lakhs of disease-free layings) for the State.

12. The foreign races of worms are not reared by the sericulturists in Mysore for producing reeling cocoons. These races are bred pure in the Government Farms for seed purposes. Experienced sericulturists in the vicinity of Government Farms and Grainages have been selected for rearing pure foreign race worms out of cellular seed issued free from Government Farms so as to increase the availability of foreign race seed cocoons. The aided grainages which have been permitted to prepare cross-breed layings have also selected a few experienced sericulturists to rear pure foreign races for seed purposes. It is found by experience that the foreign race worms are difficult to rear in this climate, easily susceptible to diseases, do not yield as much cocoons per unit as either the Pure Mysore or the cross-breed and the cocoons produced are not also so rich in silk content as the cocoons produced by the same races in their home countries. In fact, the selected seed rearer of pure foreign races requires a good deal of persuasion to continue to rear the pure foreign races for seed purposes as he finds that the rearing of either the Pure Mysore or the hybrids between Mysore and the foreign races is easier and more remunerative than the rearing of pure foreign races.

13. The Mysore seed cocoons required by sericulturists in Mysore are usually obtained from Kunigal and Bidadi areas which are reputed seed centres. Special attention is being paid by the Department of Sericulture in Mysore to improve the quality of seed cocoons produced in these areas. A description of the work of the Seed Campaign Section and of selected seed rearers is given in the Note appended to the Memorandum. The Government Central Silk Farm at Kunigal specialises in the production of Pure Mysore layings for use in seed producing areas. The systematic work in the seed areas has not only made possible the improvement of Mysore race by selection but has also minimised the incidence of pebrine, thus preventing the loss of crops due to pebrine in consuming centres even where people have to use seed cocoons.

The incidence of pebrine in the foreign races reared for seed purposes has also been minimised by conducting cellular rearings in Government Farms.

The seed cocoons purchased from the selected seed rearers are further sorted in all the grainages, where the pasteur method of cellular seed production is followed. The rules to be followed in the Government and Aided Grainages are given in the "Hand Book of Sericulture," by Messrs. M. Yonemura and N. Rama Rao, copies of which have been supplied to the Board.

It is to be noted that the Government and Aided Grainages supply to the sericulturists disease-free layings and not seed cocoons and the sericulturists are anxious to use disease-free layings only.

As a result of the systematic work done during the last few years, the incidence of pebrine in the Mysore Race has been minimised and losses due to pebrine are rare. Pure foreign races suffer more frequently from pebrine and whenever pebrine is noticed, the worms are destroyed and the rearing houses and the appliances are disinfected with formaline to prevent spread of the disease.

14. The wastage in silk-worm rearing from disease is very much minimised as the incidence of pebrine is rare and as the losses due to other diseases, such as flacherie and grasserie are not very frequent due to better methods of rearing. The present wastage in silk-worm rearing may be taken to be about 25 per cent.; this wastage is due to minor causes, such as loss of worms in cleaning beds, loss of worms due to enemies, such as rats, lizards, cockroaches and due to occasional minor diseases, such as grasserie and flacherie.

The improvements in rearing methods have been indicated in answer to Question No. 6.

15. The silk-worms in Mysore are fed on mulberry leaves. The rearer grows his mulberry on his own lands and except when for any reasons he is not able to utilise the mulberry leaves for himself, it is not grown for sale. Occasionally, surplus leaves or surplus worms are sold to neighbours who require them.

The initial and recurring expenditure per acre of mulberry garden is given below:—

Initial Expenditure per acre of mulberry garden.

Details.	Rained Gard ns.	Tank Irrigated Gardens.	Deep well Irrigated Gardens.	Shallow well Irrigated Gardens.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
1. Ploughing, digging, leveling, etc.	19 3 0	37 8 0	52 8 0	35 0 0
2. Manure and manuring .	12 10 0 (10 cart-loads at Rs. 1 each. Farm- yard.)	28 12 0 (25 cart-loads of Farm- yard.)	28 10 0 (25 cart-loads of Farm- yard.)	14 0 0 (Manure 20 cart-loads at 8 as. per cart.)
3. Preparing rows . .	0 8 0 (Plough)	..	..	..
4. Cost of cuttings . .	10 0 0	22 0 0	22 0 0	7 0 0
5. Planting charges . .	5 15 0	8 12 0	16 4 0 (including the initial watering.)	10 0 0
6. Watering . . .	25 0 0	6 0 0	24 0 0	25 0 0
7. Weeding, etc. . . .	5 0 0	1 14 0	..	3 0 0
8. Miscellaneous . . .	..	..	5 0 0	4 0 0
Total .	78 4 0	104 14 0	148 6 0	98 0 0

N.B.—Shallow well and tank irrigated gardens are planted usually in December-January, and rainfed gardens are planted in May-June and September-October.

Recurring expenditure to maintain an acre of Mulberry Garden.

Details.	Rained Gardens.	Tank irrigated Gardens.	Deep well irrigated Gardens.	Shallow well irrigated Gardens.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
1. Land Revenue	1 8 0	6 0 0	4 0 0	8 0 0
2. Ploughing or digging, harrowing and hoeing.	30 0 0	24 0 0	19 0 0	18 12 0
3. Manure and manuring . .	18 12 0	61 8 0	35 12 0	47 8 0
	(15 cart-loads of Farm-yard manure at Rs. 1-4-0 per cart.)	(40 cart-loads of Farmyard manure at Rs. 1 each and silt Rs. 10)	(20 cart-loads of Farmyard at Rs. 1-8-0 each).	(40 carts of Farmyard at 12 annas each and silt 50 cart-loads Rs. 10.)
4. Pruning	2 8 0	3 0 0	7 8 0	4 11 0
5. Weeding	1 8 0	2 0 0	1 14 0	..
6. Planting failed pits and miscellaneous.	2 8 0	..	6 0 0	5 0 0
7. Irrigation . . . . .	..	2 0 0	75 0 0	39 6 0
Total	56 12 0	98 8 0	149 2 0	123 5 0
Yield of leaf in lbs. . . .	4,000	8,000	10,000	10,000
Cost of one lb. of leaf . .	2-7 pies	2-36 pies	2-86 pies	2-36 pies

Mulberry is a deep rooted plant and yields leaf varying from 10 to 15 years according as the garden is rainfed or irrigated. The number of bushes in dry lands varies between 4,000 and 5,000 per acre. On tank fed

gardens and well irrigated gardens, the number ranges from 8,000 to 10,000 per acre. In the Kolar System (deep well) of plantation, the number may vary between 60,000 and 80,000.

The quantity of leaves required to feed the worms from an ounce of Mysore seed is 800 lbs. costing Rs. 11-4 and the yield of cocoons is 50 lbs.

16. (a) The following experiments have been conducted to reduce the cost of production of mulberry leaf:—

- (1) Raising of seedling plantations.
- (2) Formation of Mulberry Topes.
- (3) Improvement of local mulberry by selection.
- (4) Improvement of local mulberry by grafting.
- (5) Introduction of foreign varieties.
- (6) Manurial Experiments.

It is found that seedling plantations yield 15 per cent. more leaf than cutting plantations, that the use of artificial fertilisers in rotation with farmyard manure increases the yield of leaf per acre, and that by raising mulberry topes, the cost of production of leaf can be reduced. Steps have been taken to induce the sericulturists to adopt these methods.

(b) Generally in a year four to five crops of leaves are harvested from rainfed gardens and six to seven crops from irrigated gardens.

Each system of cultivation has got its own advantages and disadvantages. The question of preferring one system to the other does not arise as the two systems have got to be complementary to each other. Bush system of cultivation is necessary for feeding worms in the early stages. Bush mulberry cannot be entirely dispensed with as the leaves suited to the worms in the early stages cannot be easily obtained from tree mulberry. Tree mulberry leaf would come in handy when the worms are in advanced stages and eat larger quantity of leaf. Bush mulberry leaf can be harvested by women and children while in the case of tree mulberry higher paid male labour has to be engaged. The yield of leaf per acre of bush mulberry during the first few years is more than the yield of leaf from an acre of tree mulberry. Bush mulberry begins to yield leaf in about five to six months after planting while in the case of tree mulberry it will take at least five years to get an appreciable yield of leaf.

Details *re* the initial cost of raising one acre of bush mulberry garden and the annual recurring cost have been given in answer to Question No. 15.

The initial and recurring costs for one acre of tree mulberry and yield are given below:—

Initial cost of one acre of tree mulberry.

	Rs. A.
1. Preparing 225 pits 3' x 3' x 3' at 2 annas per pit .	28 2
2. Manure, 7½ carts at Rs. 1-8 per cart . . .	11 4
3. Red earth, 50 carts at As. 4 per cart . . .	12 8
4. Sand, 50 carts at As. 4 per cart . . .	12 8
5. Watering	3 12
	<hr/>
Total	68 2
	<hr/>

Maintenance costs of one acre of Mulberry Tope from the first year of planting to the seventh year.

Description.	Year.						
	First year.	Second year.	Third year.	Fourth year.	Fifth year.	Sixth year.	Seventh year.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
1. Three diggings and removing weeds, around the trees.	5 10 0	5 10 0	5 10 0	5 10 0	5 10 0	6 12 0	6 12 0
2. Manure .	7 8 0	7 8 0	7 8 0	10 0 0	10 0 0	10 0 0	10 0 0
3. Watering .	18 12 0	18 12 0	18 12 0	..	..	..	..
4. Pruning .	..	..	..	5 0 0	5 8 0	6 0 0	7 0 0
Total .	31 14 0	31 14 0	31 14 0	20 10 0	21 2 0	22 12 0	23 12 0
Deduct net realisations from the catch crop.	8 4 0	8 4 0	8 4 0	6 0 0	5 0 0	5 0 0	5 0 0
Net expenditure.	23 10 0	23 10 0	23 10 0	14 10 0	16 2 0	17 12 0	18 12 0
Yield of leaf each year.	No return of mulberry leaf during the first year of planting.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
		400	800	1,500	2,000	2,500	3,000
Cost of leaf per lb.	...	pics.	pics.	pics.	pics.	pics.	pics.
		11.3	5.67	1.87	1.5	1.36	1.2

Four to five crops of leaves can be harvested in a year.

The trees will last for about 25 to 30 years.

A note on the comparative merits of bush and tree mulberry will be separately submitted to be treated as an appendix to these answers.

17. (i) The rearer of silk-worms is also the cultivator of mulberry leaves. There is no person who cultivates mulberry leaves for the purposes of selling leaves only, as there is no separate and assured market for mulberry leaves; as such, the cost of cultivation of mulberry leaf is the cost of leaves to the rearer of worms, as the cocoons produced in rearing worms by utilising the leaves of his own garden, are the marketable commodity.

(ii) Since mulberry leaf is not a marketable commodity and since the cocoons produced by utilising the mulberry leaves can be sold, the profits from mulberry cultivation and silk-worm rearing cannot be compared with those of any other crops.

Information regarding the extent of mulberry cultivated by individual families collected for the year 1937-38 by the Department is given below:—

Area.	No. of sericulturists from whom information was collected.	Under $\frac{1}{2}$ acre.	Above $\frac{1}{2}$ acre and under 1 acre.	Above 1 acre and under 2 acres.	Above 2 acres.
1. Channapatna (Dry and Irrigated).	5,314	2,688	1,762	711	153
2. Kunigal (Dry and Irrigated).	1,250	1,145	92	13	..
3. Kolar (Irrigated) .	2,524	645	822	707	350
4. Mugur (Dry area) .	5,000	50	260	3,000	1,690

Investigations made in certain specified dry areas have also revealed the fact that the average individual holding of a sericulturist does not exceed six acres and that he grows mulberry over only 25 to 30 per cent. of his holding.

From the above it will be seen that the sericulturist will not stand to gain much by changing over to alternative crops, even if that is possible.

The sericulturist generally continues to raise mulberry and rear silk-worms on account of the fact that he can get four or five crops during the year instead of waiting till the close of the year for his harvest and that by this means he will get more frequent returns than the ordinary agriculturist.

18. The previous Tariff Board found that the fall in the price of cocoons and raw silk had been exceeded by that of the food crops other than rice. The following statement shows the index numbers of wholesale prices at Bangalore of selected articles from 1933 to 1938. (1914 price=100).:—

Year.	Rice 150	Ragi 188	Javari 140.	Groundnut 181.	Raw silk 117.
1933	76	73	75	80	53
1934	74	88	87	83	48
1935	85	135	105	124	52
1936	84	115	89	100	49
1937	83	93	79	115	63
January 1938	84	100	80	92	60
March 1938	84	96	82	87	56
Percentage of fall 1926-1938.	41 per cent.	49 per cent.	41.4 per cent.	51.9 per cent.	52.1 per cent.

From the statement it is seen that the percentage of fall since 1926 in the case of raw silk has been much more than in the case of some of the food crops including rice.

19. *Special measures taken to improve and encourage the Industry.*—The following special measures have been taken during these few years to reduce the cost of mulberry leaves:—

- (1) The results of the experiments conducted in the Government Silk Farms are being communicated to the sericulturists and the departmental staff have been rendering the necessary assistance to them.
- (2) A number of sericulturists have been induced to use groundnut oil cake and ammonium sulphate for their mulberry gardens so as to increase the output of leaves. The Government Farms in the sericultural centres stock the manures required and sell the same to the sericulturists at cost price. It has been found that the use of the above manures in rotation with the farmyard manure increases the output of leaves per acre without increasing the cost.
- (3) Seedlings are raised in all Government Mulberry Gardens to supply cuttings from these to the sericulturists as it is found that the yield of leaves from "seedling plantations" is about 15 per cent. more than that from "cutting plantations." A few sericulturists have raised bush plantations from "seedling cuttings" and more people are coming forward to use such cuttings only.
- (4) Saplings fit to be raised as trees are being supplied on a large scale to the sericulturists from the Government Silk Farms, free of cost, and demonstration mulberry topes have been raised with the co-operation of the Village Panchayats in a number of villages. Some of the sericulturists who have raised mulberry topes have realised the advantages and many others are coming forward to raise mulberry trees. The Government of Mysore have sanctioned the payment of a bonus to sericulturists who raise mulberry topes. In addition to the nursery for saplings in Government Farms, private sericulturists have also been induced to raise their own saplings for raising topes.

It has been found that mulberry topes raised from seedlings give better quality and quantity of leaves and last longer. Larger quantities of seedlings are being raised in Government Gardens for supply to sericulturists. Out of the 32 acres of mulberry topes planted between 1926 and 1932, only about 10 acres survive as the sericulturists neglected the topes during the depression period. Since 1933, about 26,000 saplings and seedlings have been planted as topes, but these topes are receiving better attention since 1936 when the prices of cocoons showed a tendency to rise. At present, there are about 22,000 trees covering an area of 110 acres, of which, 13,500 have been planted as topes and the rest are in the back yards of the houses of sericulturists. In addition to the supply of saplings and seedlings from the Government Farms, the sericulturists have been induced to raise about 4,000 trees.

There has been no appreciable reduction in the cost of production of mulberry leaves, as in the very nature of things, measures to reduce costs take a very long time to become effective.

About 45,000 saplings and seedlings have been supplied free, from 1926 at a total cost of Rs. 27,000.

20. The action taken by the State to improve and develop the industry since the last report of the Tariff Board on the lines recommended by them are stated in the Memorandum and the detailed note appended thereto.

21. As already indicated in answers to question No. 12, univoltines and bivoltines are not reared by sericulturists in Mysore for producing reeling cocoons. Experienced sericulturists in the vicinity of Government Farms and Grainages have been selected for rearing pure foreign race worms out of cellular seed issued free from Government Farms for increasing the availability of foreign race seed cocoons for preparing cross-breeds.

The following statement gives the average yield of cocoons per ounce of disease-free seed and per acre of bush mulberry :—

	Per acre of bush mulberry.	Per ounce of seed.
	lbs.	lbs.
Univoltines—		
Japanese . . . . .	...	37.0
Chinese . . . . .	...	30.0
Bivoltines—		
Japanese . . . . .	...	39.0
Chinese . . . . .	...	29.0
Multivoltines—		
Mysore	350	50.0
Cross-breeds	450	70.0

Since the last Tariff Board Report the total supply of disease-free layings has been increased to 100 lakhs in 1937-38, of which about 70 lakhs are cross-breed layings. Apart from this, the loss of crops due to pebrine and other diseases, has been minimised by systematic work in seed areas and by adopting improved methods of rearing. These measures have resulted in increasing the output of cocoons per acre of mulberry garden, from 260 lbs. to 350 lbs. in the case of Mysore race.

22. Experiments have already been and are being conducted to produce hybrids between Mysore race and the pure Chinese, Japanese and French races. It has been found that the first generation of hybrids between Mysore and pure Japanese and Chinese races yield cocoons in a shorter period than the pure Mysore race, that the worms are more robust than the pure Foreign races and the cocoons produced contain more silk than the indigenous race and the foreign races reared locally from imported seed. The sericulturists in Mysore have realised the advantages of rearing the first generation of hybrids and the cocoons produced are used for reeling only. The supply of cross-breed layings has been increased from about 6 lakhs in 1931-32 to about 70 lakhs in 1937-38.

23. Sericulturists cannot and have not maintained accounts from year to year. Approximate figures for rearing one ounce of seed as ascertained from enquiries made, are given below :—

	Rs. A. P.
1. Cost of seed	0 11 2
2. Cost of extra labour	2 0 0
3. Cost of leaves	11 4 0
4. Cost of appliances	1 0 0
5. Other expenses	0 6 0
Total	15 5 2

The above data pertain to rainfed mulberry gardens as that forms the bulk of the area under mulberry in the State. Generally, the members of the family attend to picking of leaves till the worms pass the fourth moult as the quantity of leaf required up to that stage is small. The members of the family attend to the rearing of worms in all the ages in addition to their household duties.

The approximate figures for rearing Mysore worms from the leaves from one acre of rainfed garden are given below:—

	Rs. A. P.
1. Cost of seed	5 3 9
2. Cost of extra labour	15 0 0
3. Cost of leaves	84 6 0
4. Cost of appliances	7 8 0
5. Other expenses	2 13 0

Total . 114 14 9

The yield of leaf from one acre of rainfed garden is about 6,000 lbs., the quantity of seed reared is 7½ ounces, the yield of cocoons is 375 lbs. assuming that all the crops raised are successful, and the cost of producing cocoons is Rs. 4.11 per pound.

The majority of the sericulturists in Mysore rear Mysore worms only as the supply of cross-breed layings during 1937-38 amounted to about 25 per cent. of the requirement. The possibility of reducing the cost of production of cocoons by rearing cross-breeds is indicated at page 5 of the Memorandum.

24. Rate of reeling cocoons per pound in Channapatna area:—

Year.	Mysore Race.	
	Maximum.	Minimum.
	Rs. a. p.	Rs. a. p.
1933	0 5 0 (January).	0 3 0. (December).
1934	0 4 3 (October and November).	0 3 0 (Jany., Feb., March and August).
1935	0 4 6 (July.)	0 3 2. January).
1936	0 4 4 (December).	0 3 0
1937	0 5 8 (February and March).	0 3 6 (June).
1938	0 4 4 (January to April).	0 3 10 (May).

For details please see Annexure D to the Memorandum.

25. The rearer sells his cocoons to a reeler or dealer in cocoons. He has to sell the cocoons at once irrespective of the state of the market, as under the present conditions he cannot afford to wait till prices suit him. He cannot also keep the cocoons for any length of time as moths will emerge and the cocoons become unfit for reeling purposes.

The average prices obtained by the rearer per pound of Mysore cocoons from 1933 to June 1938 are given below:—

Year.	As. p.
1933	3 9-30
1934	3 4-95
1935	3 8-50
1936	3 4-00
1937	4 6-00
1938	4 1-00

As a rule, the breeder of worms does not reel the cocoons himself. But on rare occasions some sericulturists, when they do not find ready market for their cocoons engage professional reelers and get the cocoons reeled.

The yield of silk depends upon the quality of silk produced, the average production of raw silk and waste from 100 lbs. of raw cocoons in country charkas is about 7½ lbs. and 3½ lbs., respectively.

26. During the year 1937-38, out of about 795,000 lbs. of raw silk produced in the State about 10,000 lbs. only were reeled by power-driven machinery and the rest in country charkas.

27. The quantity of raw silk and silk waste produced and their respective prices obtained are given below:—

Year.	Production of raw silk.		Production of silk waste.	
	Quantity.	Value.	Quantity.	Value.
	lbs.	Rs.	lbs.	Rs.
1933-34 .	788,800	31,55,200	394,400	43,130
1934-35 .	755,700	30,22,800	377,800	23,250
1935-36 .	741,700	29,66,800	370,800	52,200
1936-37 .	793,600	28,14,400	351,300	55,670
1937-38 .	795,000	...	397,500	...
	(Approximate)		(Approximate)	

Silk reeled in the Government Silk Filature, Mysore:—

(Mostly 13/15 denier silk).

Year.	Raw cocoons required to produce one pound of silk.
	Lbs.
1932-33	20-5
1933-34	18-3
1934-35	16-4
1935-36	16-7
1936-37	15-9
1937-38	15-9

The cocoons used in the Government Silk Filature, Mysore, from 1934-35 are mostly hybrid cocoons.

The quantity of Mysore raw cocoons required to produce one pound of raw silk in the country charka varies between 13 to 15 pounds depending upon the quality of raw silk produced.

28. The initial cost of equipping a country charka used for hand reeling is from Rs. 10 to Rs. 15, apart from the cost of the building. The out-turn per charka per day is from 1½ lbs. to 2 lbs., depending upon the quality of raw silk produced. The average yield may be taken at 1½ lbs. a day per charka. Each charka may last for about five years with occasional repairs.

29. The total works expenditure and the cost of producing one pound of charka silk of different grades using Mysore cocoons during 1937 is noted below :—

No.	Particulars.	I Qua- lity.	II Qua- lity.	III Qua- lity.
		Rs. a. p.	Rs. a. p.	Rs. a. p.
1	Cost of cocoons— I Quality. 18 lbs. at 0 4 9 per lb. II Quality. 26 lbs. at 0 4 9 per lb. III Quality. 25 lbs. at 0 4 9 per lb. }	5 5 6	7 11 6	7 6 9
2	Cost of labour— Reeler— 0 8 0 0 8 0 0 6 0 Turner— 0 4 0 0 4 0 0 2 0 }	0 12 0	0 12 0	0 8 0
3	Cost of fuel	0 6 0	0 6 0	0 4 0
4	Cost of water including wages for waterman	0 2 0	0 2 0	0 2 0
5	Selling expenses (commission to raw silk merchants)	0 2 3	0 3 0	0 3 5
6	Transport of cocoons and brokerage	0 3 0	0 3 0	0 2 3
7	Contingencies	0 1 6	0 1 9	0 1 9
8	Supervision and management	0 1 3	0 1 0	0 0 9
9	Total cost for silk— I Quality. 1 lb. 8 Tol. II Quality. 2 lbs. III Quality. 2 lbs. 3 Tol. }	7 1 6	9 8 3	8 12 11
10	Deduct cost of Waste— 8 lb. 1 lb. 1 lb. .	0 4 0	0 5 0	0 5 0
11	Works cost of 1 lb. of silk	5 10 6	4 9 7.5	4 3 6
12	Rendita	15	13	12

The total expenditure on reeling in the Government Filature is given below:—

Year.	Total works expenditure.		
	Rs.	A.	P.
1932-33	58,165	1	1
1933-34	47,835	13	9
1934-35	47,917	3	7
1935-36	54,439	2	2
1936-37	61,857	6	1

The above figures include depreciation charges, but not interest on capital.

The cost of producing one pound of raw silk in the Government Silk Filature is as follows:—

Heads.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
(i) Cost of cocoons	6 12 2 5	5 6 10 9	5 0 3 9	5 7 8 3	5 3 8
(ii) Cost of labour	1 0 4 7	1 2 4 8	0 14 3 1	0 14 7 9	0 13 5 5
(iii) Cost of power, light, and fuel.	0 12 0 3	0 12 5 6	0 3 11 8	0 7 10 4	0 7 5 7
(iv) Cost of water and soap	0 1 4 1	0 1 4 6	0 1 2 5	0 1 1 4	0 0 10 8
(v) Cost of supervision and management—					
(a)	0 11 2 1	0 10 0 6	0 6 2 5	0 5 9 6	0 3 7 6
(b)	0 14 5	0 14 7	0 14 9	0 14 11	0 14 11
(vi) Cost of repairs and maintenance.	0 0 10 4	0 0 2 4	0 0 6 1	0 2 1 2	0 0 8 9
(vii) Selling expenses	0 0 1 6	0 0 2 2	0 0 0 4	..	..
(viii) Other expenses	0 3 9 2	0 4 0 6	0 2 6 2	0 2 4 3	0 2 6 3
Depreciation charges	0 3 2 9	0 4 2 2	0 3 6 5	0 2 7 4	0 4 5 7
Total excluding (b)—(v).	9 13 2	8 9 9	7 5 7	7 12 2	7 4 11
Deduct—cost of waste	0 6 1	0 7 0	0 5 3	0 5 6	0 7 6
Net cost of silk	9 7 1	8 2 9	7 0 4	7 6 8	6 13 5
Net cost including (v)—(b)	10 5 6	9 1 4	7 15 1	8 5 7	7 12 4

(Figures given under (b) relate to the pay of the Assistant Superintendent of Sericulture, Mechanic and Reeling Demonstrator, borne on the establishment of the Department of Sericulture, but working in Filature.)

30. The Indian Filatures are not at a serious disadvantage in respect of the above items of expenditure.

31. There is no filature of 200 basins in Mysore. As such, no opinion can be expressed on the findings of the last Tariff Board. The Mysore Silk Filatures Co., Ltd., has arranged to start a number of filatures with 200 basins each and this probably indicates that a filature of 200 basins is considered to be an economical unit suited to the conditions in Mysore.

32. The maximum capacity of the Mysore Government Filature and the actual output of silk and silk waste are given below:—

Year.	Number of basins.	Maximum capacity.		Actual out-put.	
		Silk.	Waste.	Silk.	Waste.
		lbs.	lbs.	lbs.	lbs.
1932-33	18+16 (a)	9,750	8,370	5,921	4,913
1933-34	34	12,750	8,320	5,556	3,871
1934-35	34	12,750	8,320	6,520	4,002
1935-36	34	12,750	8,320	7,014	4,655
1936-37	34	12,750	8,320	8,463	4,624
1937-38 (10 months) .	34	12,750	8,320	7,937	4,704

(a) 16 basins were added in December, 1932.

In working out the maximum estimated output of silk and waste, it has been assumed that only 28/30 denier is reeled. But actually in the Mysore Government Filature both 13/15 and 28/30 deniers are reeled and occasionally intermediate sizes are also reeled.

33. No accurate statistics are available but an approximate estimate is given below:—

	1931-32.	1937-38.
1. Mulberry cultivation and silk-worm rearing	60,000 families	45,000 families.
2. Number of families indirectly benefited, such as those employed in cultural operations, supply of appliances, etc., and miscellaneous work, such as, trading of silk, silk waste, pierced cocoons, transport, etc.	60,000 do.	51,000 do.
3. Reeling	11,000 do.	8,000 do.
4. Weaving and connected operations . . .	20,000 do.	13,000 do.
Total	1,51,000 do.	1,17,000 do.

34. The total strength of the labour in Mysore Government Filature is 112. About 95 per cent. is skilled labour. There is adequate supply of labour. It takes about 3½ to 4 months for the untrained labour to acquire the minimum skill.

35. 1 (a) Rates of wages paid to reelers working with country charkas varies from As. 6 to As. 8 a day.

(c) Wages paid to reelers in a filature varies from As. 7 to As. 9 a day.

2. The Indian sericultural labour compares favourably with the Chinese labour and with the necessary training they would be quite efficient.

3. In Mysore the Department of Sericulture has made provision to train sons of rearers, reelers, and other skilled labourers in departmental institutions. Reeling and grainage demonstrations are held for the benefit of reelers and raiyats at the very doors of the sericulturists. The staff of the Sericultural Department impart instructions in rearing by going from house to house in rearing centres. Scholarships are awarded by Government as well as by local bodies to enable sons of sericulturists to obtain training in Government Farms. Vocational instruction is imparted in sericulture in some of the selected Middle Schools in sericultural areas.

36. The block value of the Mysore Government Filature as at the end of 1936-37 is noted below:—

(a) Leases and concessions	Nil.
(b) Lands	Government lands.
	Rs.
(c) Buildings	18,673
(d) Plant and machinery	19,181
(e) Other assets (furniture, spare parts, stilling-chamber, etc.)	3,217

The above figures have been taken from the balance sheets for 1936-37,

	Rs.
37. 1. Buildings	18,675
2. Plant and machinery	17,500
3. Other costs	2,500

38. The rate at which buildings and plant and machinery have been depreciated is noted below:—

Depreciation Reserve.				
Year.	Buildings.	Plant and Machinery.	Buildings.	Plant and Machinery.
	Per cent.	Per cent.	Rs.	Rs.
1933-34	2	5	374	800
1934-35	2	5	374	800
1935-36	2	5	374	800
1936-37	5	7½	934	1,432

No reserve fund has been created.

39. The Government Filature has a working capital of Rs. 50,000 advanced by Government. The rate of interest is calculated at 5½ per cent.

40. Silk throwing is usually carried on as a separate business, but some factories combine both silk throwing and silk weaving. The throwing factories are located mostly in Bangalore City. There are thirteen such factories in the State.

41.

	Kollegal Filature Silk.				Foreign Filature Silk.				Charka Silk I class, Hand twisted.	
	Machine twisted.		Hand twisted.		Machine twisted.		Hand twisted.		Organzine.	Tram.
	Organzine.	Tram.	Organzine.	Tram.	Organzine.	Tram.	Organzine.	Tram.		
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
1. Price of raw silk .	6 0 0	6 0 0	6 0 0	6 0 0	5 12 0	5 12 0	5 12 0	5 12 0	5 0 0	5 0 0
2. Twisting and winding .	1 8 0	0 6 0	1 12 0	0 8 0	1 8 0	0 6 0	1 12 0	0 8 0	1 12 0	0 8 0
3. "Boil off" charges .	0 4 0	0 4 0	0 4 0	0 4 0	0 4 0	0 4 0	0 4 0	0 4 0	0 4 0	0 4 0
Total .	7 12 0	6 10 0	8 0 0	6 12 0	7 8 0	6 6 0	7 12 0	6 8 0	7 0 0	5 12 0

N. E.—No allowance is made in the above figures for process losses.

42. The possibilities of improving the quality of silk produced in charkas and of removing the defects and blemishes are limited. There has, however, been some improvement as will be evident from the fact that in Mysore the proportion of silk of the first class produced has increased from 20 per cent. five years ago to 40 per cent. now.

Re-reeling, as a process, goes with throwing, but in Japan the Filature silk is re-reeled for removing gum, and to obtain a standard sized hank from the small reel on which raw silk is directly reeled. This kind of re-reeling is neither necessary nor is it done in countries where the climatic conditions permit of the silk being directly reeled on to standardised reels. All the silk produced in India is re-reeled before it is twisted and such re-reeling is done in the case of imported silk also.

The following extracts from the Japanese Silk Year Book (1935-36) explain re-reeling as it is understood in that country:—

“Direct Reeling and Re-reeling.—For some time since the introduction of foreign reeling machines, the direct reeling system was in vogue, which, however, was later replaced by the re-reeling system in many mills, because although direct reeling is more economical, the slow drying of the reeled silk in the moist climate of Japan necessitated the re-reeling of it from the small reels. Direct reeling is now obsolete.”

“Finishing of Raw Silk.—Finishing of raw silk consists of re-reeling, traversing, and skeining.”

“Re-reeling.—The reeling system in general use necessitates the re-reeling of the silk wound on the small reel to give it a fixed length,—an operation called Agekayeshi, or re-reeling. Improvements in the method have been made to render the raw silk suitable for use by the throwster, while at the same time, the re-reeling mills have been greatly improved, all of which have materially improved the finishing of raw silk, as shown in the results of winding tests at the National Silk Conditioning Houses.”

43. The cost of re-reeling or winding of Mysore charka silk is from As. 4 to As. 6 per pound apart from the wastage.

The loss in re-reeling is one tola in the case of Filature silk and 1½ tolas in the case of charka silk per pound.

44. Re-reeled charka silk is not put on the market, as re-reeling is a process combined with twisting and all the Indian silk is re-reeled and twisted before putting on the loom.

45. In India, raw silk is used for the manufacture of silk fabrics, gold thread, nakki, and brocade.

46. (1) It is very difficult to estimate the total demand in India at present for the charka silk produced in Mysore. Twelve years ago Mysore produced about 12 lakhs of pounds of raw silk and there was good demand for the same in India. Charka silk was being used both for warp and weft in handlooms. Later on, imported silks competed severely with the indigenous raw silk. With the advent of cheap Japanese Filature raw silk, even the handloom weavers in India have become accustomed to the use of better reeled silk for warp. In spite of this, there is a demand for charka silk by handloom weavers as charka silk is more durable and is used mostly for filling in, e.g., for weft, and as it possesses better lustre and has a better feel and tenacity. There is no doubt that there would be a big demand for Mysore raw silk in India if it is reeled in filatures and put on the market at cheaper prices.

(2) The total production of raw silk in Mysore during 1937-38 is estimated to be 795,000 lbs.

47. Information regarding the total quantity of raw silk and waste produced in Mysore during the last twelve years and the quantity sold for use in other parts of India is furnished in Annexure No. 1 of the Note appended to the Memorandum.

Mysore raw silk has not been exported out of India during these years. All the silk waste produced in Mysore was being exported to foreign countries till 1936-37, when the exports became reduced as a result of the starting of the Mysore Spun Silk Mills.

The quantity of Mysore silk used locally is estimated to be as follows:—

Year.	Quantity.
	Lbs.
1932-33	427,950
1933-34	354,885
1934-35	292,514
1935-36	199,026
1936-37	169,942

(NOTE 1.—These figures are based on Rail-borne Statistics and do not include road-borne figures for which no statistics are collected. There is a considerable amount of traffic in raw silk by road between Mysore and adjoining British Territory.

NOTE 2.—These figures also include twisted silk as no separate declaration is made to that effect in consigning by rail.)

For information about the marketing methods please see para. on "Market" at page 5 of the Note appended to the Memorandum.

48. Mysore raw silk has not been exported to foreign countries.

The establishment of a Silk Conditioning and Testing House would serve a useful purpose if both the indigenous raw silk and the imported raw silk are tested in the Conditioning House, and the silk business is transacted on the basis of conditioned weight and test certificates. Charka silk does not admit of the quality tests in a Conditioning House. With the establishment of Filatures and power-loom factories in India, Silk Conditioning Houses will certainly help to stimulate the trade in high grade raw silk.

49. Mysore silk is largely sold in Weaving Centres in Bombay and Madras Presidencies. Very little of it goes to up-country markets now-a-days. The usual markets in Bombay Presidency are Gadag, Hubli, Belgaum, Bagalkote, and in the south—Salem, Conjeevaram, Trichinopoly, etc. The Weaving Centres in Bombay Presidency which use Mysore silk are practically equidistant from Bangalore on the one hand, and Tuticorin on the other. Foreign silks are generally imported into Bombay, Tuticorin and Madras.

50. There is no appreciable difference in the prices of silk sold in home and distant markets.

51. The charka silk is not graded by any scientific methods. The traders determine the quality of silk by examining for uniformity, broken ends, cleanness, nerve, feel, colour and lustre. Filature silks are examined scientifically by means of instruments for uniformity, elasticity and tenacity and winding, the other qualities being tested by visual inspection.

Charka silk can be graded provided reeling is improved. Systematic improvement in grading is only possible on the establishment of a standard quality based on accurate tests. The Silk Association is working up to the ideal of a central conditioning house. But progress is greatly hampered by the continued depression in the silk industry.

52. There is no marked difference between the prices published by the Mysore Chamber of Commerce and the actual prices realised by the reelers. The Mysore Silk Association has maintained an agency to collect correct figures re market rates for silk, etc., and are publishing a fortnightly market report.

53. The silk merchants in Mysore do not import foreign silks from the country of origin. They get their supplies from importers in Bombay and

Madras. A statement showing quantities of foreign silk imported into Mysore State is given below:—

Year.	Quantity imported.
	Lbs.
1932-33	169,179
1933-34	189,586
1934-35	230,482
1935-36	293,595
1936-37	379,913
1937-38	501,861

Rates of Canton and Japan Silk of 20/22 Denier at Bombay and of Mysore Charaka 1st quality—

Year.	Canton.	Japan.		Mysore Charaka 1st Quality. (Bangalore Rate).
		White.	Yellow.	
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Lbs. A. P.
1933 .	3 5 4 to 4 14 11	...	...	3 15 0 to 6 0 0
1934 .	3 6 5 to 4 6 0	...	...	3 12 0 to 4 14 0
1935 .	4 6 6 to 5 12 6	4 0 0 to 5 12 0	3 14 0 to 5 10 0	4 0 0 to 5 14 0
1936 .	4 12 0 to 5 11 6	4 14 0 to 6 15 0	4 13 0 to 6 3 0	3 15 0 to 6 0 0
1937 .	4 12 0 to 5 11 0	5 8 0 to 6 14 6	5 8 0 to 6 13 6	4 11 0 to 6 6 0
1938 .	4 1 6 to 4 14 6	5 6 6 to 5 13 0	5 4 0 to 5 11 0	4 5 0 to 5 10 0

54. Silk coming under the category "All other sorts" and "Japanese Filatures" compete with Indian filature silks and displace charaka silk of first quality. Silks coming under the category of "All other sorts" and "Japanese Filature" and "Hand-reeled" compete with the first, second and third quality Indian charaka silk. "Dupion" silk of first quality and silks coming under the category of "Hand-reeled" compete with charaka silks of second and third quality.

All the above silks are used by the handloom weavers but the tendency is to use more and more of imported silk coming under the category of "All other sorts" and "Japanese Filatures."

55. Artificial silk and staple fibre do not directly compete with Indian silk but the increasing imports of artificial silk are having a depressing effect on the use of Indian natural silk.

56. The imports of raw silk into India from several countries since 1932-33 are noted below:—

Year.	From China.	From Japan.	Total from all countries.
1932-33 .	2,929,758	164,799	3,186,262
1933-34 .	2,101,330	220,170	2,378,197
1934-35 .	1,299,414	896,544	2,216,920
1935-36 .	490,693	1,625,300	2,191,136
1936-37 .	815,580	1,073,775	1,974,489
1937-38 .	928,738	1,405,489	2,535,274

From the above figures it is seen that the imports into India from Japan gradually rose from 33,000 lbs. in 1931-32 to 896,544 lbs. in 1934-35, and

in 1935-36 the imports of Japanese silks were practically twice those of the previous year. Imports from China were the lowest in 1935-36. In 1936-37 and 1937-38, the imports of Japanese silk were very much more than those from China. The present competition is largely from Japan, though competition from China cannot altogether be ignored.

The following information collected from the American Silk and Rayon Digest and from other reliable sources will indicate the manner and extent of dumping of Japanese silks into this country during this period.

Japan had stored 112,000 bales of silk in 1929-30 with a view to stabilising silk prices and the Government had assured the Banks to indemnify losses to the extent of 30 million Yen. The object for which the silk was stored was, however, not realised and so in later years they were compelled to release the stored silk for sale. In 1932, Government contracted with the Asahi Silk Company to sell to the Company 107,830 bales of this stock at 455 Yen per bale, i.e., 50 Yen cheaper than the prevailing market prices and at a total loss of 90,420,000 Yen. This contract was, however, cancelled as all the silk interests in Japan and America protested against the sale of the bonded silk in the usual markets as that would upset the markets and the Government had therefore to buy back the entire quantity of remaining silk aggregating to 98,310 halos. It was also decided that the above silk would be released gradually in the course of five years in such a manner and at such prices as would not affect the usual markets. The Government decided to bear the final losses accruing from the above arrangement. The Government appointed a Committee to find ways and means for disposing of the stock without disturbing the export market and for reimbursing part of the money paid by the Government for the stored silk. In 1934, they cleared 1,831 bales of the above silk of which 1,338 bales were distributed free of charge for the purpose of making samples of new textiles in Japan. In May, 1934, Government negotiated for the transfer of some stocks of the above silk to Messrs. Nippon Kinu-yori Kaisha and Messrs. Mitsui Bussan Kaisha with the intention of export to India as it was found that the Indian silk market that was entirely controlled by Chinese raw silk could be supplied with this bonded silk. The Japanese Government gave also an assurance that this bonded silk would not be exported to the consuming markets of Europe and America but would be gradually fed out to users in Japan, India, Egypt, etc. In 1935, a total quantity of 13,600 bales of the bonded silk was exported to British India at the cheap rate of 406 Yen per bale (Exchange value 100 Yen-Rs. 77) while the cost of production of that silk was 1,300 Yen when the exchange was Rs. 137 per 100 Yen (or over Rs. 12 per pound) and the purchase price by Government was 455 Yen per bale. It is also seen that the average rate obtained per bale of silk exported from Japan to all countries in the world during the calendar year 1935 was 700 Yen. This clearly indicates that Japanese silk was put on the Indian Market during 1935 at rates very much lower than the cost of production and at prices very much lower than those at which Japanese silks were put on other markets. The enormous increase of imports of Japanese silk into India during 1934-35 and 1935-36 was due to the export of the bonded silk from Japan. The sale of this better reeled Japanese Filature raw silk in the Indian markets at very low rates affected not only the prices of Indian silks but also restricted the imports of Chinese silk into India. In fact, for about three months, i.e., April to end of July, 1936, Chinese silk was scarce in India. Having created a market in India, the exports from Japan to India during some months in 1936 and 1937 were restricted and out of 12,119 bales exported from Japan to India during the calendar year 1937 about 9,000 bales were sent out between July and December, 1937. The exports from Japan to India during the calendar year 1936 were about 7,700 bales. As a consequence, the prices of Japanese silks in India went up during the latter part of the year 1936, and these prices were maintained till about October, 1937. There was a rise in the Yokohama spot price per bale of silk from 700 Yen in July, 1936 to 925 Yen in November, 1936 and from January, 1937 to November, 1937 the spot prices

in Yokohama ranged between 700 Yen to 952 Yen per bale. Taking advantage of the rise in prices the sale price of the bonded silk to India was also put up. Even at these higher rates at which the Japanese silks were sold in India between October, 1936 and October, 1937, the prices obtained in India for Japanese silks were below the cost of production and below the spot prices in Yokohama and this is indicated by the following figures:—

Year.	Month.	Spot prices in Yokoha- ma per lb.	Prices cum duty at which Japanese silk should have sold in India.	Market prices for Japanese silk in Bombay.	Cost of production per lb. of Japanese silk.	
					In Japan.	Price cum Duty at which it should have to sell in India.
		Rs. s. p.	Rs. s. p.	Rs. s. p.	Rs. s. p.	Rs. s. p.
1935	January to March.	4 8 9	6 14 11	4 0 0	4 5 7	6 11 0
	April to June	4 0 11	6 5 2	4 2 6 to 4 4 0		
	July to September	4 5 0	6 10 3	4 2 0 to 5 0 0		
	October to Decem- ber.	4 14 6	7 6 1	4 12 0 to 5 12 0		
1936	January to March.	4 9 6	6 15 2	4 14 0 to 5 0 0	4 7 1	6 12 10
	April to June	4 0 3	6 4 3	4 14 0 to 5 1 0		
	July to September	3 15 5	6 3 3	5 0 0 to 5 6 0		
	October to Decem- ber.	4 7 6	6 13 4	5 11 0 to 6 15 0		
1937	January to March.	5 2 0	7 10 6	6 8 0 to 6 13 0	3 15 11	6 3 10
	April to June	5 0 0	7 8 0	6 7 6 to 6 12 0		
	July to September	4 15 6	7 7 4	6 7 0 to 6 14 6		
	October to Novem- ber.	4 5 3	6 10 7	5 8 0 to 6 2 0		
	December	3 14 11	6 2 8	5 8 0 to 5 10 0		

NOTE.—In Japan new season silk is put on the market in the months of July and August.

The stock of bonded silk amounted to 75,400 bales in September 1935, 63,200 bales in May, 1936, 53,000 bales in September, 1936, and 48,000 bales in September, 1937. This stock of 48,000 bales was to be used in connection with the Raw Silk Stabilization Act passed on 22nd March, 1937. It was stated that though the law would be given effect to from April, 1937, the restrictive features of the Stabilization Act would not begin to function until 1938.

From the Review of the Trade of India for 1935-36 published by the Department of Commercial Intelligence and Statistics, it is seen that in 1935-36 while China commanded almost the entire trade in hand-reeled silk and waste products, her share compared with that of Japan was very small in respect of "other sorts" under which were recorded Filature reeled silk.

In the case of Japanese silk, the average declared value was Rs. 2-8 per lb. in 1935-36, Rs. 3-6 per lb. in 1936-37, and Rs. 4-1-2 in 1937-38. The average declared value of the imports of raw silk into India from all countries ranged from Rs. 2-4-6 to Rs. 3-1-3 per lb. in 1935, from Rs. 2-7-2 to Rs. 2-15-7 per lb. in 1936 and from Rs. 3-4-11 to Rs. 4-2-7 per lb. in 1937. During the first five months of 1938, the average declared value was Rs. 3-9-7 in January, Rs. 4-4-5 in February, Rs. 2-15-7 in March, Rs. 2-12-11 in April, and Rs. 3-1-9 in May. The cost of production of raw silk per lb. in Japan amounted to Rs. 4-5-7 in 1935, Rs. 4-7-1 in 1936 and Rs. 3-15-11 in 1937. When compared with the average declared values of imports into India, the cost of production in Japan has generally been higher.

The spot prices in Yokohama during 1936 ranged from Rs. 3-15-5 to Rs. 4-0-6 per lb. and in 1937 from Rs. 4-5-3 to Rs. 5-2 per lb. From this also it is seen that the average declared values in India of Japanese imports have been lower than the spot prices in Yokohama.

Under the Raw Silk Stabilisation Act, the Japanese Government in January, 1938 fixed the standard quotation for raw silk for the year 1938 at 950 Yen maximum and 520 Yen minimum per hank of 133 lbs. with the proviso that the Government would release the stocks of raw silk to adjust the prices if the market quotation went above the maximum fixed and that it would purchase the silk if the market quotations went below the minimum. It is also seen that out of 48,000 bales of bonded silk in stock in September, 1937, 7,500 bales had been sold up to January, 1938 and the Government had arranged to sell another 10,000 bales of the stock in a short time for the purpose of opening new markets and for utilisation locally. A large portion of this bonded silk must have been exported to India as can be seen from the reduced average declared values in December, 1937 and January, 1938 and March and April, 1938 and the low rates at which Japanese silks are selling in India since December, 1937.

In the estimate for new items of sericultural work for the year 1938, the Japanese Government provided a sum of 500,000 Yen towards the subsidy for opening new markets for raw silk and for finding out new uses for raw silk and also another sum of 25,550 Yen towards expenditure for the management of raw silk purchased by Government. These estimates were passed at the 73rd Session of the Imperial Diet.

The Japanese Government decided about the end of December, 1937 to arrange for the disposal of about 7,500 hales of bonded silk with the following concessions:—

The price to be reduced by 25 per cent. compared with the registered average quotation of raw silk exported 3 to 20 days before the date of delivery, if the silk was meant for new methods of utilisation. In case the silk was damaged in quality, the price to be discounted by another ten per cent. The price to be further reduced up to a limit of 20 per cent. with reference to the conditions of the silk business in the new markets.

Chinese Silks.—From information available, it is seen that the price of cocoons in China in 1936 amounted to As. 4-3 per pound and that the cost of production of silk was Rs. 4-13-8 per pound. In 1937, the cost of production of raw silk per pound ranged between Rs. 4-2-6 and Rs. 4-4 per pound. These Chinese silks should have been sold in the Indian markets at rates varying from Rs. 6-8-1 to Rs. 7-5-1 during 1936-37 if they had been sent out to India even at cost price; but it is seen that Chinese silks have been sold in India during 1936 at rates varying from Rs. 4-12-6 to Rs. 5-11-6 a pound and during 1937 at rates varying from Rs. 4-12 a pound to Rs. 3-11 a pound and in 1938 from Rs. 4-1-6 to Rs. 4-14-6 a pound. Sino-Japanese trouble started during August, 1937 at which time there were about 10,000 bales in stock in China. By December, the stock had been reduced to 3,000 bales, the rest having been exported at very low prices on account of the unsettled conditions there.

57. The imported silks are in two colours, white and yellow. White silk loses less in degumming than Mysore raw silk while the imported yellow silks lose more in degumming than Mysore raw silk. So far as the colour is concerned, no special preference is attached by the weaver because all the raw silk has got to be degummed before it is put on the loom, and in this process, it gets bleached. Mysore raw silk takes both light and dark shades equally well. In the case of imported silks white raw silk is suited for light shades and yellow raw silk for dark shades. The imported filature silks are superior to Indian charka silk so far as winding quality is concerned, but there is no difference in winding quality between indigenous filature silks and imported filature silk. The imported raw silks are more uniform in size than Indian charka silks but in uniformity there is no difference between Indian and imported filature silks. But, Mysore silk is superior in lustre, feel, elasticity and tenacity. The difference in price between Mysore and imported silks is not due to differences in natural qualities. The weaver purchases foreign silks because they are very cheap, have better winding qualities and are easier to handle on the loom.

Mysore silk owing to the aggressive competition is not realising that premium in price that is due to it on account of its superior qualities.

58. There is no doubt that the depreciation of Chinese and Japanese money has accentuated the competition of imported silk with Indian silk. As compared to 1931, the Yen has depreciated by 45 per cent., the Shanghai Dollar by 55 per cent. as compared to 1932, and the Hongkong Dollar by 30 per cent. as compared to 1934.

59. This does not refer to Mysore silk.

60. Silk waste is not imported into India.

61. The production of silk waste in reeling depends upon the quality of cocoons used for reeling and the quality of silk produced. The percentage of waste is more in producing Filature silk and first quality charka silk than in the case of producing 2nd and 3rd quality charka silk. The waste produced in reeling different qualities of silk from Mysore cocoons is noted below:—

	Per cent.
Filature silk	70
I Class charka silk, about	65
II and III Class charka silk, about	45 to 50
The average is about	50

62. The present prices for filature waste is about As. 11-6 per lb. and for charka waste about As. 5 per pound.

63. In Mysore, the production of cross-breed cocoons has been increased. The supply of cross-breed layings has been increased from about 6 lakhs of

layings in 1931-32 to 70 lakhs of layings in 1937-38. The Mysore Government Filature which uses cross-breed cocoons only got 60 per cent. of silk waste in 1937-38. The percentage of silk waste amounted to 57 per cent. in country charkas producing I class charka silk, and varied from 43 to 50 per cent. in country charkas producing II and III class charka silk.

64. The Government of Mysore have assisted the starting of a Joint-Stock Company with an authorised capital of ten lakhs of rupees to put up a Spun Silk Plant of 3,000 spindles at Channapatna. The Company was formed in 1936 and the plant has been erected completely and the operatives are being trained in work. Detailed information re the Mysore Spun Silk Mills will be furnished by the Company.

65. Almost all the machinery required for a filature can be manufactured in Mysore except motors and boilers. The local made machinery would cost comparatively less.

66. The exports of silk waste from Mysore are noted below—

Year.	Quantity exported.	
	Lbs.	
1932-33	117,829	
1933-34	87,634	
1934-35	269,403	
1935-36	412,745	
1936-37	303,963	
1937-38	171,237	

It is seen that the exports of silk waste had fallen to the low figure of about 87,000 lbs. in 1933-34, they rose to 269,000 lbs. in the next year, and in 1935-36 to 412,000 lbs. In 1936-37 the export fell to 303,963 lbs. and in 1937-38 there was a further fall and the exports are about 171,000 lbs. In 1934-35 and 1935-37 the exports rose considerably as the proposals to start a Spun Silk Mill was under the active consideration of the Government of Mysore. The prices of silk waste also increased during these years. The reduction in the export during the subsequent years is due to the fact that a large quantity of this raw material was bought by the Mysore Spun Silk Mills.

A silk waste is the raw material used in the manufacture of spun silk and as spun silk yarn is largely imported into India, it would be desirable to utilise the silk waste produced in India for manufacturing spun yarn in India.

67. The export trade in silk fabrics from Mysore is not appreciable. Whatever little export trade there is from Mysore is concerned with fabrics exported for the use of the Indian families in Burma, Ceylon and Singapore. The total value of the export trade per year may not exceed Rs. 5,000.

68. The present customs classification of imported silk is generally suitable, though it is capable of improvement by the adoption of more scientific classification in order to distinguish between superior and inferior qualities now grouped under the same head.

In regard to tariff valuation, the present procedure of fixing the tariff values for the whole year should be abolished and duty should in all cases be levied on the invoice values of the imported goods. This change is necessary in view of the fact that under the present system there is scope for the imported goods of higher values to be classified for customs purposes under heads assessed to lower rates of duty. As a specific instance, attention may be drawn to the existing schedule where the tariff valuation of Japanese Filature silk has been fixed at Rs. 4-12 per lb. On this valuation, the

selling price of Japanese Filature silk in Indian markets should be in the neighbourhood of Rs. 6-13; whereas, it is actually being sold in the Indian markets at rates varying from Rs. 5-6 to Rs. 5-10 a lb.

69. (a) The measure of protection should be in the neighbourhood of Rs. 3-10 per pound in order to bring the price of imported silks to the level of the fair selling price of Indian silks. Any protective duty falling short of Rs. 3-10 per pound, therefore, will not give the relief which the industry deservedly stands in need of at the present time.

(b) In the form of a specific duty.

(c) The period for which protection is granted should be at least 15 years.

Full reasons for the above answers are given at pages 9, 10 and 11 of the Memorandum.

The Government should also take power to revise the pitch of duty from time to time as and when circumstances necessitate.

70. The textile industry in India and the handloom industry would suffer if protective duties are levied on raw silk and other raw materials alone as that would induce the foreign exporters to export to India manufactured articles. To safeguard the interests of the handloom industry in India, the duty on imported silk piece-goods, etc., should also be raised adequately so that the price of imported fabrics is brought up to the level of the fair selling prices of indigenous handloom products. If protective duties are levied on imported silk piece-goods, etc., the handloom industry in India is bound to develop along with the increased establishment of power loom factories, which has been a marked feature in the industrial development of the State in recent years. There is no likelihood of any other industries being affected.

71. 80 to 90 per cent. of the cost of twisted silk is the cost of raw silk according as it is organzine or tram. About 50 per cent. of the cost of silk piece-goods is represented by the cost of raw silk.

72. The protection granted in 1934 has not at all been beneficial to the industry as it was totally inadequate and as the period was short. The higher duties levied on imported silks have merely reduced the losses to the rearers and the reelers.

73. The steps taken by the Government of Mysore to improve the industry have been fully explained in the Memorandum and the Note already submitted to the Tariff Board.

74. If adequate protection is granted for a sufficiently long period, it may be possible to secure about 30 per cent. reduction in costs of production of Mysore silk.

By intensifying the measures already taken to introduce improved methods of production and progressively lessening costs, described in detail both in the Memorandum and the Note appended thereto, both with Government assistance and by stimulating private effort, it is estimated that in the course of about 15 years, the cost of silk may be brought down by about 30 per cent. of the present cost.

(5) *Letter from the Director of Industries and Commerce in Mysore, No. C1-412/37-38, dated the 23rd July, 1938.*

In continuation of my letter of even number, dated 22nd July, 1938, on the above subject, I have the honour to send herewith a further set of three copies of the replies to the General Questionnaire.

I am also sending enclosed a collection of extracts from the Silk and Rayon Journal and other records which may be treated as an appendix to the replies to the General Questionnaire.

APPENDIX TO REPLIES TO THE GENERAL QUESTIONNAIRE.

Extracts from Silk and Rayon Digest and Japan Silk Year Book, etc.

(Silk and Rayon Digest, Vol. XXVI, No. 16, Monday, April 16, 1934.)

STATISTICAL HIGH LIGHTS OF THE WEEK, BY ALEXIS TATISTCHEFF, CHIEF
STATISTICIAN, COMMODITY EXCHANGE, INC.

Note.

On April 5th, a cable from Japan contained information that a total of 1,831 bales of the stocks of raw silk held in custody by the Japanese Government were disposed of in the following manner: 503 bales were sold, and 1,338 bales were released free of charge for the purpose of making samples of new textiles. Surplus stocks, in the custody of the Japanese Government have thus been reduced to 96,469 bales. It will be remembered that these stocks accumulated during the 1929-30 season, and originally totalled 112,000 bales.

(Silk and Rayon Digest, Vol. XXVI, No. 21, Monday, May 21, 1934.)

STATISTICAL HIGH LIGHTS OF THE WEEK.

On the 5th, advices from Japan indicated that 321 bales of the stock of raw silk held in custody by the Government had been disposed of in small quantities, distributed to native mills for experimental purposes. It was also said that the Japanese Government is now negotiating the sale of 1,500 bales of the custody stock for export to India.

(Silk and Rayon Digest, Vol. XXVI, No. 22, Monday, May 23, 1934.)

STATISTICAL HIGH LIGHTS OF THE WEEK.

A news item contained in the M. Iketani Reports, dated May 1st, contained the information that negotiations were progressing with the Department of Agriculture and Forestry in Japan for the transfer of stocks of raw silk held by the Government, to Nippon Kinuyori, and the Mitsui Bussan Kaisha, who intend to export that silk to India. The matter will be discussed at a meeting of the Raw Silk Demand Improvement Investigation Committee. At present, the Indian Market is almost entirely controlled by Chinese raw silk. However, out of the total annual demand, of 20,000 bales, it is thought that about 10,000 bales could be supplied from Japan.

The issue of April 28th, of the same Reports, contains an estimate of the excess of supply of, over demand for, raw silk, at the end of the current season. The carryover is placed at between 80,000 and 90,000 bales.

(Silk and Rayon Digest, Vol. XXX, No. 9, Monday, March 9, 1936.)

JAPAN RAW SILK SHIPMENTS AND COSTS TO DIFFERENT COUNTRIES, 1934-35.

Statistics released by the Department of Commerce in its report on textile raw materials, showing the total quantity and the value in Yen of silk exported from Japan during the calendar year 1935, indicate that the average cost of raw silk for that period was almost 25 per cent. higher than during the calendar year 1934. We give below the complete statistics

showing the quantities, values and countries to which the silk was exported during these two years:—

Exported to	1934.		1935.		Average cost per bale—1935.
	100 Kin.	Value in 1,000 Yen.	100 Kin.	Value in 1,000 Yen.	
All countries (Total)	505,999	286,794	553,156	387,032	700
United States	425,914	230,568	466,576	328,911	706
Canada	767	411	120	70	583
France	36,374	20,334	34,792	23,765	681
Great Britain	22,878	14,237	28,433	21,451	765
British India	4,067	1,789	13,632	5,533	406
Australia	5,523	4,017	5,081	4,233	830
Switzerland	170	102	380	264	694
Italy	1,571	998	165	130	788
Other countries . . .	8,545	5,338	3,977	2,675	673

The average cost per bale for the individual countries during the year 1935 as indicated in the above table, reveals some interesting variations. It will be noted that the average cost of the silk exported to the United States was 706 Yen per bale. This naturally ran very close to the average for the entire exports since the United States, as the largest consumer, would come very close to setting the value itself. However, it will be noted that France has succeeded in purchasing her silk at an average cost of 681 Yen per bale which obviously is below the general average. On the other hand, Great Britain, the third largest importer of Japan raw silk paid well above the average for the quantities which she used. The peak price for some reason seems to have been paid by Australia, which used approximately 5,000 bales at an average cost of 830 Yen per bale. It would seem that Australian manufacturers came in the market rather heavily when prices were up around the peak.

The efforts of Japan to develop new customers and uses for raw silk can be seen rather clearly in the 13,600 bales which were exported to British India. This silk cost Indian users an average of only 406 Yen per bale according to statistics.

One can easily understand the rapidly increasing use of silk in British India when it is realized that at this subsidized price, the actual cost of the silk cannot be much over 75 cents a pound in terms of gold currency.

Extract from Silk and Rayon Digest, January 7, 1935.

GOVERNMENT SURVEY FIXES AVERAGE REELING COST OF JAPAN RAW SILK AT 173.10 YEN PER BALE.

The average production cost of Japan raw silk is 173.10 yen per 100 kin, 132 lbs., according to the result of the investigation carried out by the officials of the Department of Agriculture and Forestry of Japan. The finding is based on the operation reports for the sericultural year of 1932, beginning June 1, 1932, and ended May 31, 1933, submitted by more

than 3,000 reeling plants under the provisions of the Raw Silk Industry Law.

The production cost of raw silk at 3,245 reeling plants under survey averaged 173.10 yen per 100 kin in the sericultural year of 1932. A comparison of the operation results discloses that the production cost at plants of individual reeling companies is 10.28 yen lower than that at the co-operative reeling plants, the figures for the former being 172.36 yen, and those for the latter 182.60 yen.

Expenses of different items are given as follows (in yen, per 100 kin); Salaries and allowances to officers and office employees, 9.60; wages and allowances to operatives 53.50; fuels, 16.45; electric power and light, 3.08; dining room expenses, 15.00; insurance premium, 1.52; packing cost, 1.74; sales commission, 6.34; expenses for drying cocoons, 4.78; commission for purchase of cocoons, 4.69; labour recruiting expenses, 0.23; storage, 1.26; transportation, 6.82; correspondence, 0.97; travelling expenses, 2.64; taxes and dues, 3.42; interest, 17.05; stationery, etc., 2.23; lease, 0.66; expenses for welfare of employees, 3.34; sundry expenses, 14.01; repairs, 4.56.

It is noticeable that the production cost is highest in Shizuoka, with 318 yen, while the lowest record of 64 yen is seen in Saitama prefecture. In Akita prefecture, the production cost averaged at 247 yen, and in Aomori at 114 yen. Figures for the principal silk producing prefectures are as follows (in yen).

Nagano 184, Fifu 185, Saitama 202, Gunma 159, Ehime 179, Fukushima 179, Aichi 160, Shizuoka 178, Ibaraki 181 and Yamanashi 151.

It should be pointed out, says the report, that the reeling plants under survey are operated on a comparatively smaller scale. In fact, about two-thirds of the total plants under survey are equipped with 100 or less basins. Besides some consideration should be given to the fact that some questionable items are included in the cost.

JAPAN SILK YEAR BOOK.

(Page 332.)

Purchased Raw Silk Committee.—In 1930, the Raw Silk Stabilization Loan Indemnification Law came into operation and the Syndicate Banks made loans against about 100,000 bales of raw silk which were withdrawn from the market to prevent undue fall in prices. Later it was contracted to sell the stock entirely to Messrs. Gerli & Co., New York of which Messrs. Asahi Silk Corporation was agents but the contract was soon cancelled for some reason or other. As the holding of the stock in private hands was a cause of apprehensions in the market here and abroad, it was purchased immediately afterwards by the Government which appointed a Committee to find ways and means of selling the stock without disturbing the export market and of reimbursing part of the money that was paid by the Government for it.

Raw Silk Demand Improvement Committee.—This Committee appointed in July, 1932, deals with all matters of importance relating to new uses for raw silk, the cultivation of new markets for it and the taking of means for creating a wider demand for it. It also concerns itself with the disposal of raw silk that was purchased by the Government already referred to.

Raw Silk in Stock.—(*Silk and Rayon Digest*, April 16, 1934).—"On April 6th a cable from Japan contained information that a total of 1,831 bales of the stocks of raw silk held in custody by the Japanese Government were disposed of in the following manner:—503 bales were sold and 1,338 bales were released free of charge for the purpose of making samples of new textiles. Surplus stocks in the custody of Government have thus been reduced to 96,469 bales. It will be remembered that these stocks accumulated during the 1929-30 season and originally totalled 112,000 bales."

Ibid—May 21st, 1934 (Page 6).—"On 5th advices from Japan indicated that 321 bales of the stock of raw silk held in custody by the Government had been disposed of in small quantities distributed to native mills for experimental purposes. It was also said that the Japanese Government is now negotiating the sale of 1,500 bales of the custody stock for export to India."

Page 7.—"The Japanese Government would arrange for 40,000,000 Yen in loans to farmers so that cocoons prices could be maintained at a minimum of 30 Kake. 1934-35 season. A cost of 30 Kake would mean that Crack 12/15 would have to sell in Yokohama at around 580 to 600 Yen."

Silk and Rayon Digest, January 7, 1935 (page 7).—Government survey fixes average reeling cost of Japan silk at Yen 173.10 per bale of 132 lbs. June 1, 1932, to end of May, 1933, 3,000 reeling plants figures.

Silk and Rayon Digest, January 14, 1935.—Japanese Government to put Raw Silk Sales Control Plan before Diet.

The Sato Plan—page 6.

Silk and Rayon Digest, May 13, 1935 (Pages 4 and 5).—Silk held by Japanese Government—85,000 bales.

To be used solely outside the normal trade channels.

Plight of Chinese silk industry due to silver policy of United States of America.

Silk and Rayon Digest, July 15th, 1935 (page 10).—Last year at this time Government stocks totalled 93,775 bales and this year 79,500 bales. 1929-30 season stock—112,000 bales.

July 29th, 1935.—Retailing Canadian Tariff imposed on all imports from Japan.

So far raw silk free.

New 33½ per cent. duty from August, 1935.

Usually 2,000 to 3,000 bales to Canada monthly.

December 23rd, 1935.—69,000 bales held in custody by Japanese Government.

May 18th, 1936.—63,200 bales held in custody by Japanese Government.

September 21st, 1936.—Government help to Chinese Raw Silk Industry.

October 12th, 1936 (page 7).—Market letter, dated the 9th October, 1936, from A. D. Walker. The stocks of raw silk were low. "This is eliminating from consideration the old inferior silk held by the Japanese Government and which is being gradually fed out to users in Japan, India, Egypt, etc., and has been definitely pledged shall not be exported to the consuming markets of Europe and America."

January 11th, 1937—W. A. Spifford.—"The sharp jump in the exports from Japan during December, 1936, is due to a special situation, namely, the imposition of a new 5 Yen export tax on raw silk after January first. The funds to be so raised by this export tax will be put at the disposal of the Silk Guild here for promotional uses."

Japan Raw Silk Trade, 1935.—13/15 D Grade white—

	Yen per bale of 133 lbs.
January, 1931	630
March	575
June	575
End of October	1,005
December	905

January and February—Unfavourable. American Supreme Court on Gold Clause.

Abrogation of Gold Clause stimulated prices. Average cost of low grade 13/15 for the crop of 1935 estimated at 750 Yen per bale.

Government Stock—

January, 1935 . 91,320 bales

December, 1935 . 67,209 bales. Consignments to India, Egypt and South America and local manufacture.

"It was found, however, that the present law only allowed the disposal of Government stocks on new markets like India, Egypt and South America or for the purpose of manufacturing new lines of piecegoods in Japan and no sales outside the original plan were made." (Page 4 of Japanese Silk Year Book.)

Pages 278 and 279 of *Japan Silk Year Book—Exports of Spun Silk.*—British India comes first. In fact the condition of the Indian demand determines the general condition of the Spun Silk trade in Japan.

Year.	Total Export.		India (export).	
	Bales.		Bales.	
1926	1,337		495	
1932	8,218		7,247	
1933	4,278		3,274	
1934	11,682		10,452	
1935 (½ year)	10,360		8,823	

India the best consumer. Regarding other countries the Japanese should be most careful in offering them the best qualities at moderate prices.

The Silk Industry of Japan—By Mr. C. C. Ghosh.—1 Yen per value rupee 1 annas nine. Yield of leaves per acre of mulberry garden. Dr. Osawa—11,250 lbs. with stem.

Proportion of leaves to stem—6:4. $\frac{6}{10}$

Hence—7,500 lbs. of leaves only per acre.

A seed rearer in Gunna—8,900 lbs. of leaves only per acre.

Per acre of mulberry garden—

Initial 200 Yen, plus 30 Yen for grafts, planting, etc.=230 Yen, i.e., 230 plus 120=350 Rupees.

Up-keep—60 Yen for labour, plus 80 Yen for manure, etc.=140 Yen per acre, i.e., Rs. 210 per acre.

Average cost for producing one Kwan (8.27 lbs.) of leaves=0.25 Yen, i.e., As. 6-3, at par, i.e., about 9 pias per lb.

Agricultural Department—

Average yield of leaves per acre=900 Kan leaves or 60 Kan cocoons

$$= \frac{900 \times 8.27}{7443.00} = 7,443 \text{ lbs. of leaves.}$$

$$\frac{60 \times 8.27}{496.20} = 496 \text{ lbs. of cocoons.}$$

$$496 \times 7443 \div 15 = 15 \text{ lbs. of leaves per lb. of green cocoons.}$$

$$\begin{array}{r} 496 \\ 2483 \\ \hline 2480 \end{array}$$

Egg sheets—28 moths—1.50 Yens to 2.50 Yens.

Import duties in Japan.—25 per cent. on raw silk except Chinese tassar which is required as raw material for Ponje.

30 per cent. on thrown silk and silk yarns.

100 Yen per 100 Kin (133 lbs.) on rayon.

50 to 180 Yen per 100 Kin of wool and silk tissue and wool and cotton tissue.

50 to 520 Yen per 100 Kin of silk tissue.

Raw Silk Prices in Japan (*Silk and Rayon Digest*)—Japan Spot Market.
—(Actual sales in picul bales.)

D. Grade.

		Yen per bale of 133 lbs.			Yen per bale of 133 lbs.
1933.			1934—contd.		
January 30th	to		April 7th	.	555 to 565
February 4th	.	670 to 700	April 14th	.	527 „ 550
February 6th	to		April 28th	.	520 „ 540
11th	.	680 „ 720	May 5th	.	500 „ 515
February 13th	to		July 2nd	.	465 „ 492
18th	.	690 „ 710	July 28th	.	455 „ 472
February 20th	to		August 4th	.	455 „ 460
25th	.	705 „ 720	September 22nd	.	452 „ 492
February 27th	to		October 8th	.	490 „ 510
March 4th	.	680 „ 710	October 29th	.	522 „ 535
March 11th	.	645	November 5th	.	515 „ 525
March 18th	.	655 „ 670	November 26th	.	532 „ 562
March 25th	.	650 „ 670	December 3rd	.	575 „ 590
April 1st	.	635 „ 655	1935.		
April 22nd	.	735 „ 820	January 11th	.	620 to 642
April 29th	.	770 „ 800	February 8th	.	597 „ 612
June 12th to 17th	.	960 „ 1,040	April 26th	.	605 „ 620
September 9th	.	850 „ 860	May 13th	.	595 „ 602
September 16th	.	850 „ 875	May 20th	.	600 „ 627
September 25th	.	840 „ 900	June 6th	.	577 „ 590
October 23rd	.	695 „ 720	June 28th	.	592 „ 595
November 4th	.	630 „ 660	July 12th	.	597 „ 625
November 13th	.	600 „ 630	July 26th	.	645 „ 690
November 20th	.	585 „ 615	August 9th	.	695 „ 717
November 27th	.	525 „ 585	August 23rd	.	782 „ 805
December 4th	.	535 „ 555	September 6th	.	787 „ 820
December 11th	.	555 „ 585	September 27th	.	830 „ 887
December 18th	.	570 „ 600	September—Abyssinian War.		
December 25th	.	540 „ 560	October 4th	.	845 „ 890
1934.			October 25th	.	967 „ 1,000
January 6th	.	550	November 8th	.	970 „ 990
January 27th	.	600 to 615	November 22nd	.	915 „ 940
February 3rd	.	610 „ 662	November 29th	.	965 „ 900
February 10th	.	640 „ 670	December 6th	.	835 „ 870
March 17th	.	560 „ 580	December 27th	.	867 „ 880

	Yen per bale of 133 lbs.		Yen per bale of 133 lbs.
1936.		1937.	
January 24th	815 to 842	January 8th	905 to 912
February 21st	750 „ 805	January 15th	910 „ 952
March 20th	717 „ 765	February 5th	880 „ 910
April 24th	710 „ 747	February 26th	850 „ 887
May 5th	730 „ 750	March 5th	862 „ 892
May 29th	647 „ 675	March 19th	905 „ 952
June 5th	625 „ 650	March 26th	905 „ 950
June 26th	690 „ 722	April 16th	882 „ 895
July 3rd	700 „ 717	May 7th	810 „ 835
July 24th	730 „ 745	June 11th	805 „ 840
August 21st	767 „ 787	June 25th	840 „ 850
August 28th	740 „ 755	July 16th	877 „ 905
September 11th	705 „ 737	July 30th	845 „ 885
October 2nd	730 „ 755	August 13th	820 „ 840
October 30th	790 „ 815	September 10th	822 „ 830
November 6th	785 „ 810	October 1st	785 „ 830
November 20th	867 „ 910	October 15th	765 „ 770
November 27th	897 „ 925	October 29th	767 „ 782
December 11th	852 „ 875	November 12th	725 „ 745
December 24th	850 „ 872	November 26th	667 „ 700
		December 10th	685 „ 710
		December 24th	680 „ 692

Extract from Silk and Rayon Digest, Vol. XXXII, No. 14, Monday, the 5th April, 1931.

(Pages 1, 6 and 7.)

ACT FOR RAW SILK PRICE STABILIZATION ENTERPRISES PLANNED TO BENEFIT PRODUCING AND CONSUMING MARKETS.

Statement by T. Ishiguro, Director, Japanese Government Raw Silk Intelligence Bureau.

The bill for the Act for Raw Silk Price Stabilization Enterprises, proposed to the Diet by our home office in Japan—the Department of Agriculture and Forestry—has recently passed both Houses and is now expected to be enforced on and after April 1st.

This bill is the result of strenuous efforts on the part of our Department, together with the associations of the Japanese sericultural industry and trade, to work out a plan to minimize the extraordinary advance or decline of raw silk price in the Japanese market, for the benefit of the industry and the trade.

It is as yet too soon to explain the plan and its operation in detail as not a few important items of the plan will be provided for in the Imperial and Departmental Ordinances. However, such interest has been manifest concerning the bill in this market, that we deem it necessary to inform you of the points of this bill in so far as possible.

The bill for the Act for Raw Silk Price Stabilizing Enterprises consists of 40 articles and 2 supplementary provisions. The substance of these is as follows:—

- (1) This plan is designed to prevent extraordinary advance or decline of raw silk prices in order to stabilize and develop the whole sericultural industry and trade.

- (2) The raw silk reelers, with the approval of the Government, are to establish an association to stabilize raw silk prices with the object of contributing to the development and improvement of the sericultural industry.

When the association above mentioned is established, all reelers in Japan proper shall be members thereof—raw silk wholesalers, exporters and reelers in districts where the Act is not to take effect (such as Korea), may become members of the Association.

- (3) The Association shall purchase or sell raw silk at certain fixed prices upon application for the purpose mentioned.
- (4) The "selling and purchasing prices" mentioned above shall be fixed by the Government upon consultation with an official committee for raw silk price stabilization.

The committee consists of Government officials, men of knowledge and experience, and representatives of every branch of sericultural industry and trade.

- (5) The "selling and purchasing prices" shall be worked out in consideration of the prices of other fibres influential to the raw silk price, a part of the cost of cocoon production consisting of the amount of monetary expenses, and a certain percentage of the estimated value of self-supply; expenses of raw silk reeling and its marketing; commodity prices in general, and other economic conditions.
- (6) The association may carry out the following enterprises in addition to the selling and purchasing of raw silk with the approval of the Government:—
- (a) Joint withdrawal for custody, of raw silk belonging to members, from the market.
 - (b) Supervision concerning the enterprises of members.
 - (c) Projects for the improvement of the enterprises of members.
 - (d) Accumulation of funds to finance the Association's enterprises.
 - (e) Other enterprises which contribute to the fulfilment of the purpose of the Association.
- (7) Joint withdrawal for custody of raw silk from the market may be done only when the market quotation of raw silk declines below a certain level (which will be fixed at a certain percentage above the "purchasing price" by Imperial Ordinance).
- (8) The Association must not sell or purchase raw silk save on occasions mentioned in No. 3, or in cases specially designated to Imperial Ordinance (such as for replacing stock for new lots).
- (9) The Government will sell or purchase raw silk owned or held by the Association upon its application at the prices mentioned in No. 4.
- (10) The Government may sell or purchase raw silk at the prices mentioned in No. 4, directly to or from individuals upon their application, before the establishment of the Association.
- (11) The Government may purchase raw silk in order to hold it in quantity necessary for the operations to maintain the selling price mentioned in No. 3.
- Such purchase shall be performed in such a way as not to harmfully affect the market, and only when the market quotations stay below a certain percentage of the "selling price" (when percentage will be fixed by Imperial Ordinance).
- (12) The Government may also replace the stock with new lots, sell for liquidation the stock of quality unsuitable for holding, or manufacture; or it may release the stock for new uses, or to new markets.

- (13) The prices at which the Government may sell or purchase raw silk in the cases mentioned in No. 11 and No. 12 shall be based upon the current market quotation.
- (14) The Government may order the members of the various associations of the sericultural industry to submit to the control of their respective associations concerning the production, stock, or marketing of cocoon eggs, cocoons, or raw silk.
- (15) The Government is to carry out extensive investigations as regards production, stock and consumption.
- (16) This Act is to function with the Act for Independent account for Raw Silk Price Stabilizing Enterprises, which authorises the Government expenditure of 70,000,000 Yen for this plan.

The present stock of raw silk held by the Government, approximately 50,000 bales, may be used for the function of this Act.

As it is clear from the above descriptions, this plan does not aim at any direct restriction or control over market quotations in either spot or future markets, but it intends to minimize the undue fluctuation of raw silk price by means of selling or buying operations by an association of reelers with the support of the Government in the spot market but not in the future market.

The "selling and purchasing prices" are to be fixed ordinarily, in January and are to be effective for the period from the following July to the next June, but are subject to change if urgently necessary owing to economic conditions. For this year, however, our home office has not yet decided if and when the prices will be fixed, and if fixed, the period during which such prices will be effective. It will take some time to make the operations necessary for the fixing of such prices, and besides, there must be several months between the time of fixing the prices and the period of enforcement, so that, in our opinion, it will not be in the very near future that the Act will actually function in its purpose.

As to the level at which the "selling and purchasing prices" will be fixed for the first time, it is absolutely impossible for us to forecast this. All we can say at present about this matter is that the price fixing will be based upon statistical data, and announcement of such prices will be made immediately after the decision by the committee to the fairness of all concerned.

In conclusion, we wish to state the sincere intention and good will of the Japanese sericultural industry, as embodied in this plan and eagerly await the satisfactory outcome of the plan for the benefit of the raw silk industry and trade in both the producing and consuming markets.

T. ISHIGURO, *Director,*

Japanese Government Raw Silk Intelligence Bureau.

March 27, 1937.

(6) *Letter No. CL. 412/37-38, dated the 30th July, 1938, from the Director of Industries and Commerce in Mysore.*

In continuation of my letter of even number, dated the 22nd July, 1938, forwarding replies to the General Questionnaire issued by the Tariff Board on Silk Industry, I have the honour to forward herewith the following supplementary notes and request that the receipt of the same may kindly be acknowledged:—

- (1) Details regarding the several items of expenditure with regard to the maintenance of an acre of bush mulberry in Mysore.
- (2) Note on the comparative merits of bush and tree mulberry [reply to question No. 16 (b)].

- (3) Note on reduction in the cost of production of Mysore silk (reply to question No. 74).
 (4) Supplementary note to the memorandum presented to the Tariff Board by the Government of Mysore.

Enclosure 1.

DETAILS FOR REPLIES TO QUESTION NO. 15.

MULBERRY CULTIVATION.

1. Dry Garden—T. Narasipur area.

Recurring expenditure per acre of Garden.

	Rs. A.
1. Land Revenue	1 8
2. Ploughing and hoeing and harrowing—	Rs.
(i) Ploughing, twice a year, three ploughs each time at Re. 1 per plough (Bullocks, plough and man included)	6
(ii) Harrowing and hoeing twice a month, i.e., 24 times a year at Re. 1 each time. (Bullocks, harrow, man included)	24
	30 0
<i>N.B.</i> —The soil has to be kept loose and stirred up during rainy season as well as during summer in the case of dry gardens.	
3. Manure and manuring—	
15 carts of cattle manure at Re. 1 per cart plus 4 annas a cart-load, for cart hire and manuring charges	18 12
(Manure costly as cattle food is not plentiful in the area and more often cattle have to be stall fed.)	
4. Pruning.—4 male coolies for one day and a half at As. 6 each per day, or 6 coolies for one day at 6 annas each and two female coolies at 2 annas each for one day	2 8
(This has to be done in the busy agricultural season when labour is rather costly. The pruned cuttings have to be bundled and removed. Once in three years deeper pruning has to be done to avoid the stocks being damaged by cattle at time of ploughing, etc.)	
5. Weeding—Twice.—6 female coolies at a time at 2 annas a day	1 8
6. Planting failed pits and miscellaneous	2 8
Total	56 12

Yield of leaf—4,000 lbs. per year.

Cost of production of 1 lb. of leaf—2·7 pies.

In dry gardens of Channapatna and Kunigal areas, the pits are nearer as such ploughs cannot be used. Digging, etc., has to be given with human labour. As such the cost of maintenance of one acre of garden will be Rs. 84 per annum and the yield of leaf per acre would be about 8,000 lbs. per year.

As far as possible family labour and material are used to reduce cash payments.

II. Tank Irrigated Garden.

Recurring expenditure per acre of Garden per year.

	Rs. A.
1. Land Revenue	6 0
2. Digging—6 times per year, each time 16 coolies at As. 4 each	24 0
	Rs. A.
3. Manure and Manuring—	
(i) Manure—	
(a) 40 carts at Re. 1 per cart	40 0
(b) Transport charges—1 cart at Re. 1 per day for 6 days	6 0
(c) Loading and unloading 1 cooly for 6 days at As. 4 per day	1 8
	47 8
(d) Silt—cart hire at Re. 1 per day for 10 days	10 0
For loading and unloading 1 cooly at 4 annas a day for 10 days	2 8
	12 8
(ii) Manuring—6 coolies at As. 4 each	1 8
4. Pruning—12 coolies at As. 4 each	3 0
5. Weeding—Female coolies	2 0
6. Irrigation, i.e., as water flows in channels from the tank no cost for lifting water but labour only is required to lead the water properly in the garden	2 0
	98 8

Total yield of leaf—8,000 lbs.

Cost of production of 1 lb. of leaf—2.36 lbs.

III. Deep Well Irrigated Garden.

Recurring expenditure per acre of Garden.

	Rs. A.
1. Land Revenue	4 0
2. Digging—3 times per year (ordinary digging) and once deep digging—	
	Rs. A.
20 coolies at As. 3 each for each ordinary digging	11 4
For deep digging at 5 annas to 6 annas a cooly	7 12
	———— 19 0
3. Manure and manuring—	
(a) Manure—	
(i) 20 cart loads cattle manure at Rs. 1-8 per cart	30 0
(ii) Cart hire, loading and unloading and application	5 12
	———— 35 12
(Manure is costly in the area as there is intensive system of cultivation and as other commercial crops, such as—potatoes, onions, etc., are grown.)	
4. Pruning—Five times	7 8
5. Weeding—Female coolies	1 14
6. Planting failed pits and miscellaneous	6 0
7. Irrigation—	
One cooly for leading water at 3 annas a day for 2 days, i.e., 40 times	15 0
Two pair bullocks and two men at Rs. 1-8 for each irrigation, i.e., 40 times	60 0
(The wells are deep and water is lifted from a depth of 40 to 50 feet with the help of bullocks. Two pairs of bullocks are required and one acre is irrigated in two days and the garden has to be irrigated 40 times at least during the year.)	
	————
Total	149 2
	————

Yield of leaf—10,000 lbs.

Cost of production of 1 lb. of leaf—2-86 pies.

IV. *Shallow well irrigated garden.*

Recurring expenditure per acre of garden per year.

	Rs. A.
1. Land Revenue	8 0
2. Digging—5 times, 20 coolies each time at 3 annas each	18 12
3. Manure and manuring—	
	Rs. A.
(a) (i) Manure 40 carts at 12 annas a cart	3 0
(ii) Transporting charges at Rs. 1 for 10 carts	4 0
(iii) Silt, 50 carts, carting charges, at 5 carts per rupee	10 0
(b) Manuring—	
	Rs. A.
(i) Manuring—2 male coolies at 3 annas each	0 6
10 female coolies at 2 annas each	1 4
	1 10
(ii) Loading and applying silt, etc.—2 male coolies at As. 3 each	0 6
12 female coolies at As. 2 each	1 8
	47 8
(Manure is comparatively cheap and available in large quantities and near to the gardens, etc. Soil is sandy, as such—silt also has to be applied.)	
4. Pruning—25 male coolies at As. 3 each	4 11
5. Weeding . . . . .	...
6. Planting failed pits and miscellaneous	5 0
7. Irrigation—	
Preparing furrows, 50 male coolies at 3 annas each	9 6
40 times at 4 male coolies at As. 3 each time	30 0
(The wells are shallow and picotas are used. Three men are required for each picota and one man for leading the water.)	
Total	123 5

Total yield—10,000 lbs.

Cost of production of one pound of leaf—2.36 pies.

Enclosure 2.

QUESTION No. 16 (b) OF GENERAL QUESTIONNAIRE.

NOTE ON COMPARATIVE MERITS OF BUSH MULBERRY AND TREE MULBERRY.

Bush mulberry is raised from cuttings. The cuttings are planted in May, June and July and September and October generally in the case of raiu-fed gardens as the soil has to be prepared and the cuttings planted after some rainfall. For sometimes after planting, the cuttings have to be watered by hand. Cultural operations, such as—loosening the soil, etc., have to be attended to carefully till the plants come up. In irrigated gardens, i.e., in areas where there is deep well irrigation, the fresh gardens can be planted at any time but even here the soil has to be prepared at least three months in advance of planting as the cuttings suited for planting will not be readily available on account of the system of pruning the gardens at each harvest. To allow the cuttings to become fit for planting, the rearer has to stop pruning the garden during one crop and the cuttings can be used for planting only after harvesting the leaves of the next crop. This naturally takes 3 months. In tank irrigated and riverside gardens, fresh plantings are usually done in December and January as this is the period of pruning the gardens. Planting new gardens during the rainy season is usually avoided in such cases as floods would spoil the new gardens and as heavy rainfall would swamp the gardens behind tanks and thus destroy the cuttings, etc., newly planted.

Rearings with the first crop of leaves from newly planted gardens cannot be started earlier than about five months after planting as it takes time for the plants to come up and the leaves are fit to be harvested.

In the case of tree mulberry, the saplings have to be in the nursery for at least two years. The two year old saplings are then planted in fields. The pits for the trees have to be got prepared before the rains start, fresh earth, manure and sand put into the pits and the saplings planted after some rain has fallen. The trees have to be watered individually at least twice a week. Growth of side shoots on the stems has to be avoided by constantly removing the buds as soon as they appear so that the growth is only at the top. The trees have also to be mauured and each tree given a digging at least thrice a year. The trees have to be watered during the summer season during the 2nd and 3rd years also. Growth of side shoots has to be avoided and by proper pruning, the trees have to be trained properly. At the time of inter-cultivation, great care has to be taken to avoid injury to the young trees. The trees have also to be protected from cattle, goats, etc., specially during the agricultural off-seasons. In addition to the manure applied for inter-crops, each tree has also to be mauured separately.

In the tree system of cultivation, the yield of leaf would be appreciable five years after planting. During the first year there is no yield at all. The sericulturist has to spend money, take care of the trees, etc., during the first four years without any adequate return. If during this waiting period, the cocoon prices are very low or unremunerative, it is difficult to expect the man to pay much attention to the trees. In fact, experience has shown that the trees planted from 1926 to 1933 have been neglected and in some cases even removed as the prices for cocoons were very low. Sericulturists began to take interest in mulberry trees after 1936 when prices for cocoons were over annas five a pound for a few months off and on. Thus, tree system can be popularised provided the sericulturists are assured of a remunerative price for the cocoons produced, for a sufficiently long period, say, 15 years.

During the first few years, the mulberry trees have to be watered during the summer season and as such, people who have got facilities for water supply are in a favourable position to raise mulberry topes. In areas where mulberry gardens depend upon rainfall, it is found rather costly to water the trees during summer. Sometimes water may not be available and has to be brought from a long distance specially during abnormal times. As

such, it is not possible to substitute tree mulberry for bush mulberry in these areas to any appreciable extent.

It has been found by experience that mulberry trees raised from cuttings are liable to be attacked by borers and other insect pests after a few years. It is expected that mulberry trees raised from seedlings will last longer than mulberry trees raised from cuttings.

The limited average holding of a family (about 6 acres) has also to be taken into consideration in this connection. The sericulturists do not set apart all their land for mulberry cultivation alone. Investigations conducted have shown that about 25 per cent. of the holding would be set apart for mulberry cultivation while food-crops, etc., are grown on the rest. The yield from an acre of tree mulberry would be about 3,000 lbs. per year in the seventh year after planting, while the yield from bush mulberry will be about 2,000 lbs. for the two or three crops during the first year of planting and will be about 6,000 lbs. a year from the second year onwards. In the case of tree mulberry, other catch crops can be grown during the first few years. The yield from catch crops would be reduced when the trees have advanced in age as the branches with leaves spread out. Experience has shown that the yield from catch crops in aged mulberry topes is very much less than in the case of fields where no other trees have been grown. As the mulberry trees advance in age and spread out the branches, they require heavy manuring also. The cost of pruning also will be heavy as the person has to work at a height of about 7 feet from the ground. The cost of harvesting leaves from trees will also be more as women workers cannot attend to it.

To rear worms from one ounce of seed about 800 lbs. of leaves are required of which about 200 lbs. are required in the early ages, i.e., up to 4th moult and the balance in the last age. The young worms have to be fed with tender leaves suited to the age of the worms. Such leaves can be obtained more easily from bush mulberry. The leaves from tree mulberry have to be harvested when the worms have passed the 4th moult. From an acre of bush mulberry yielding about 6,000 lbs. of leaves per year, worms from about $7\frac{1}{4}$ ounces of seed can be reared and the yield of Mysore cocoons would be about 375 lbs. The leaves required for these worms in early ages would be about 1,500 lbs. and after the fourth moult, about 4,500 lbs., that is, the sericulturists has to maintain $\frac{1}{4}$ acre of bush mulberry and $\frac{1}{4}$ acres of tree mulberry. (7 year old trees.) This means, that he has to set apart $1\frac{1}{4}$ acres for mulberry instead of one acre. Whether a small landholder can do this is a point for consideration.

Taking all factors into consideration, it will be seen that the scope for substituting tree mulberry for bush is limited. The growth of mulberry trees in the backyards of houses and on margins of fields can however be encouraged. Efforts should be made to increase the yield of mulberry leaves per acre of bush mulberry by using seedlings in place of cuttings for propagation and by using better and more suitable manures. The existence of a large number of mulberry trees in sericultural areas will help the rearer to obtain leaves at cheaper rates. The availability of tree mulberry leaf and the increased yield of leaf from bush mulberry without increase in costs of cultivation is expected to reduce the cost of mulberry leaves to about 2 pice per pound in the course of about 15 years.

Enclosure 3.

QUESTION No. 74.

SUPPLEMENTARY NOTE ON REDUCING THE COST OF PRODUCTION OF MYSORE SILK.

I. Reducing the Cost of Production of Cocoons.

(a) *Reducing the cost of production of Mulberry Leaves.*—Mulberry is at present propagated by means of cuttings. The yield of leaf from rain-fed

gardens amounts to about 6,000 lbs. per year and the expenditure on maintenance is about Rs. 84. The average cost of production of a pound of leaf is about 2·7 pies. The cost of mulberry leaf is the largest item of expenditure in the cost of production of cocoons. As such, every attempt has to be made to reduce the cost of production of mulberry leaves. Experiments to reduce the cost of production of mulberry leaves are being conducted in the Government Farms in Mysore. Over 30 varieties of mulberry suited to tropical climates have been obtained from Japan, China, and Korea and planted in the mulberry garden at Mysore. As it was found that the propagation of these foreign varieties by means of cuttings, was not successful, experiments are being conducted to propagate these by layerings and graftings. To prepare grafts, Mysore Mulberry has to be raised from seeds and this takes at least a year before Mysore seedlings are ready for grafting. Some grafted varieties have been planted separately and experiments are being conducted to ascertain the yield of leaves per acre, the quality of leaves and the yield of silk from worms reared on the leaves from the grafted varieties so as to determine the best grafts. This also is a matter of time. After determining the best grafts, steps have to be taken to prepare the grafts on a large scale for distribution to sericulturists. As such, the introduction of better varieties of mulberry takes a long time.

From experiments conducted so far it is found that raising of bushes from seedlings has got distinct advantages. The yield from bushes raised from seedlings is more and the quality of leaves also better. It is found that the yield of leaf is at least 15 per cent. more than in the case of bushes raised from cuttings. A few sericulturists who had been supplied with seedlings and cuttings from seedlings for new gardens have also testified to the fact that the yield of leaves is more and the quality also better. More and more sericulturists have been coming forward to use seedlings and cuttings from seedlings for raising bush-mulberry.

The nursery for seedlings in mulberry gardens attached to Government Farms is being gradually expanded so as to increase the supply of seedlings, etc., to the sericulturists.

Another experiment which has shown that the yield of leaves can be increased without increasing the expenditure is the use of chemical manures. As a result of repeated experiments spread over a number of years, it has been found that a mixture of Ammonium Sulphate and Ground-nut Oil cake is one of the manures suited for mulberry. An application of this mixture in rotation with farmyard manure would increase the out-put of leaves by about 15 per cent. The cost of this manure is very much less than the cost of farmyard manure and as the quantity to be applied per acre is very much less than farmyard manure, there would be savings in transport and application charges.

Thus, by adopting the above two methods, i.e., raising bushes with seedlings and cuttings from seedlings and application of a mixture of Ammonium Sulphate and Ground-nut Oil cake, the yield of mulberry leaves per acre of bush mulberry can be increased by about 30 per cent., i.e., from 6,000 lbs. per year to about 8,000 lbs., a year without increasing the costs. This would reduce the cost of production of mulberry leaf from about 2·7 pies per lb. as at present to about 2 pies per lb.

The raising of mulberry trees from seedlings in the backyards of houses and on margins of fields wherever facilities are available would also help the sericulturists to obtain mulberry leaf at lower costs. Planting of mulberry trees on a large scale has got certain disadvantages apart from the long period of waiting for the trees to yield an appreciable quantity of leaves. It is found that the sericulturists can be very easily induced to plant and take care of a few trees in the backyards of the houses and on margins of fields. Planting of mulberry trees in backyards and margins of fields would be encouraged and the planting of trees on a large scale wherever facilities exist will also be stimulated. The existence of well established mulberry trees in the vicinity of the sericultural villages would be of great assistance

to sericulturists in reducing the cost of production of cocoons. Taking into consideration the soil and climatic conditions in Mysore it may not be possible to further lower the cost of production of mulberry leaf in the immediate future as new varieties can be evolved and made available for propagation on a large scale after further experimental work only.

(b) *Reducing the cost of production of cocoons.*—(1) By preventing loss of crops due to bad seed, etc.

(2) By increasing the output of cocoons per unit by adopting improved methods of rearing, etc.

(3) By increasing the output of cocoons per unit by using seed of higher and quicker yielding races and by careful attention to rearing, etc.

Formerly, two out of every five crops were being lost due to bad seed. The sericulturists who could not get disease-free seed were using un-examined seed and were getting about 280 lbs. of Mysore cocoons per acre of mulberry. The worms would die or would have to be thrown away in the advanced stages when almost all the leaves would have been utilised and much labour spent. Thus, the sericulturists suffered considerably but they carried on the industry as they were getting very high prices for whatever cocoons they produced. When the prices went down, it was not possible for the sericulturists to make both ends meet and many of them gave up the industry after suffering losses repeatedly. Such of the sericulturists who had planted mulberry on their own lands and used examined seed only were able to carry on the industry as they did not suffer losses of crops but even these people found it hard to sell their cocoons at remunerative rates due to the fall in demand for Mysore Charka Silk which had to be sold at very much lower rates in competition with imported silks. As the cash outlay on mulberry cultivation and silk worm rearing was limited, the reduced prices which were obtained for cocoons considerably reduced the remuneration for the family labour and family material used in mulberry cultivation and rearing. As there is no other subsidiary occupation or industry which would employ the family labour and give even a small return several times in the year, the sericulturists who could not make both ends meet by raising food crops only and who had no other way of getting some small cash several times in the year, continued to carry on the industry but on a limited scale so as to reduce the cash outgoings.

The systematic work done by the Department of Sericulture in Mysore in the seed cocoon producing areas has enabled the sericulturists to obtain good seed cocoons and to minimise the losses due to pebrine.

The supply of disease-free layings from Government and Aided Grainages has been of great assistance to the sericulturists.

Thus, by improving the quality of seed, it has been possible to eliminate losses due to pebrine and the sericulturists are getting almost all their crops successfully. The average yield of cocoons per acre of bush mulberry has been raised from 280 lbs. to 350 lbs. of Mysore Cocoons. It is expected that the average yield would reach 375 lbs. in a short time.

By using 6,000 lbs. of leaves costing Rs. 84, the rearer gets 375 lbs. of Mysore Cocoons including cost of leaves is about Rs. 115, i.e., Rs. 0.4-11 per pound. This includes the value of family material and labour used for producing mulberry leaves but does not include the value of family labour spent in rearing worms. The actual cash outlay per pound of cocoons amounts to As. 2.5 out of As. 4.11. Thus, if the cocoons are sold at As. 3.0 a lb., the return for family labour in mulberry cultivation and rearing is 7 pies only or about Rs. 14 only for the whole year for the whole family and when cocoons are sold at 5 annas a pound, the return for the family labour, material, etc., used in mulberry cultivation and rearing for the whole year for the whole family would be about Rs. 60. This sum of Rs. 60 is got in five or six instalments. This is a very small income but that this is the minimum remuneration required to keep the industry going is demonstrated by the fact that people who had given up the industry took to it again and people who had restricted the mulberry gardens expanded the same when the prices

for cocoons were round about five annas a pound during a few months in 1936 and 1937 and began to neglect the gardens and some even removed the plants when prices again went down, for fear of incurring heavier losses later on and for want of financial stamina to maintain the gardens.

The industry would develop rapidly if the return per acre is over Rs. 80 per year and this can be obtained if prices are about 6 annas a pound for some time.

The increased supply of cross-breed layings made available by Government and Aided institutions has also encouraged the sericulturists to some extent. The total demand for cross-breed layings is about 300 lakhs per year and the supply has been increased from 6 lakhs in 1931-32 to about 70 lakhs in 1937-38. As yet only 25 per cent. of the requirement has been met while the other 75 per cent. has been pure Mysore seed. The supply of cross-breed layings cannot be increased all at once as people have to be trained in grainage work, in rearing pure foreign races and in preparing hybrids. This is not a thing which can be done in a hurry as the sericulturists would suffer more and would lose confidence by a single false step or mistake. It will take years and involve heavy cost to build up the work so as to be able to supply cross-breed layings to the extent of 300 lakhs a year.

Experience has shown that by rearing cross-breed worms, the yield per unit is much more than in the case of Mysore worms. The consumption of mulberry leaves to produce one pound of Mysore cocoons which is about 16 lbs. can be reduced to about 14 lbs. by rearing cross-breeds. Thus in the course of 15 years by which time the yield of mulberry leaf per acre would have been increased from 6,000 lbs. to about 8,000 lbs., the yield of cocoons per acre would be increased from 375 lbs. of Mysore cocoons to about 550 lbs. of cross-breed cocoons, i.e., the cost of production of cocoons would be reduced from Rs. 4-11 per lb. to about Rs. 3-4 per pound. Owing to the increased output of cocoons per acre, the cash outgoings per pound of cocoons would be Rs. 1-7 a pound as against Rs. 2-5 per pound at present. Even if the cocoons are sold at four annas a pound the return for the family labour would be about Rs. 2-5 a pound or about Rs. 83 per acre.

The attached statement makes this position clear. If the industry has to develop the sericulturists should get a remuneration of over Rs. 80 per acre for the family labour, material, etc., during the next 15 years at least.

(c) *Cost of production of raw silk.*—In the cost of production of raw silk, the cost of cocoons is the biggest item. At present about 15 lbs. of Mysore cocoons are required to produce one pound of first class charka silk and 18 lbs. of Mysore cocoons to produce one pound of filature silk. The price of cocoons should be about five annas a pound at present if the industry has to survive. As has been shown above, it would be possible to put the cocoons on the market at 4 annas a pound without hardship to the rearer in about 15 years by which time—improvements in mulberry cultivation and rearing of silkworms would have been effected. As such, good cocoons would be available at 4 annas a pound.

As a result of the advent of Japanese filature silk and the change in fashions, the demand now is and would be in future for finer fabrics. These finer fabrics can be produced by using filature raw silk only. As such, the demand would be for high grade raw silk produced in filatures. The charkas can only produce rough silk out of inferior cocoons and the raw silk in filatures in Mysore. The cost of production of filature silk is about Rs. 7-12 at present paying about Rs. 5-3 a pound of cross-breed cocoons. When the cocoons are available at 4 annas a pound the cost on account of cocoons would be reduced by about Rs. 1-4 a pound, i.e., the cost of raw silk would be Rs. 6-8 a pound. With improvements in the quality of mulberry leaves produced and with improved methods of rearing, the quality and silk content of cocoons also will be

improved. We may safely expect that about 14 lbs. of improved cocoons would give one pound of filature silk as against 16 pounds at present. This will be reduce the cost of cocoons from Rs. 5-3-8 at present to about Rs. 3-8 a pound of raw silk 15 years hence. With high grade cocoons for reeling, the output of silk per day per basin will increase, the wages and other charges being the same. It is quite possible to reduce the overhead charges per pound of filature silk from about Rs. 2-8 a pound to about Rs. 1-8 a pound in the course of 15 years. Thus, high grade filature raw silk can be made available in Mysore at about Rs. 5 a pound in the course of 15 years.

The starting of filatures in Mysore is quite necessary for maintaining the silk industry as the future is for better reeled raw silk. Based on the present acreage under mulberry there is need for at least ten filatures of 200 basins each in Mysore. These filatures can only be started with the support of the public. The filatures can attract money from the investing public provided the working conditions are satisfactory. As it is, the investing public is shy to invest money on new ventures. Starting of filatures in Mysore is a new venture and to attract capital and to work the filatures satisfactorily, an assurance that the indigenous silk industry would receive adequate protection for a long period, say, 15 years at least is necessary.

Given adequate protection for a sufficiently long period, there is no doubt that the indigenous silk industry would respond to the call and would be in a position to face competition with the existence of the ordinary revenue duties only, provided there is no unfair competition from other countries.

Necessity for continued research work.—It is necessary to note that research work on mulberry cultivation, rearing of worms and reeling of silk has to be continued unabated. Japan has been able to advance just on account of the huge amounts spent on continued research work. The Government of India set apart one lakh of rupees a year for sericultural research work for 5 years from 1934 but only a small fraction of this amount is made available for work in Mysore though Mysore has been spending a large sum of money on research work. It is necessary that Government of India should set apart more money for sericultural development and research work and that the amount should be allocated in proportion to the nature of work to be done, importance of the industry, etc., without any reference to Indian States and British Indian Provinces. The Government of Mysore will always be glad to bear its own portion of the expenditure as it has been doing all along.

Statement regarding costs of production of cocoons at present and the margin of Loss or Profit at varying rates from three annas to six annas a pound and also 15 years hence when improvements would have been effected.

No.	Cost of production of 1 lb of pure Mysore cocoons at present.										Cost of production of 1 lb. of cross-breed cocoons at present.										After 15 years when improvements would have been effected and cross-breeds are reared.											
	From dry gardens.					From irrigated gardens.					From dry gardens.					From irrigated gardens.																
	Including family labour for Mulberry cultivation.		Excluding family labour for Mulberry cultivation.		As. 2-5	Including family labour for Mulberry cultivation.		Excluding family labour for Mulberry cultivation.		As. 2-4	Including family labour for Mulberry cultivation.		Excluding family labour for Mulberry cultivation.		As. 4-1	Including family labour for Mulberry cultivation.		Excluding family labour for Mulberry cultivation.		As. 2-1			Including family labour for Mulberry cultivation.		Excluding family labour for Mulberry cultivation.		As. 3-4	Including family labour for Mulberry cultivation.		Excluding family labour for Mulberry cultivation.		As. 1-7
	As. 4-11	As. 2-5	As. 4-8	As. 2-4		As. 4-3	As. 2-2	As. 4-3	As. 2-2		As. 4-1	As. 2-1	As. 3-4	As. 1-7																		
Varying Market rates.	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss		
1	As. p.	3 0	Nil	0 7	1 11	1 8	1 2	0 8	1 3	0 10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
2	3 6	..	1 5	1 1	1 2	1 2	1 2	0 8	0 9	1 4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
3	4 0	..	0 11	1 7	..	0 8	1 8	..	0 3	1 10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
4	4 6	..	0 5	2 1	..	0 2	2 2	..	..	2 4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
5	5 0	0 1	Nil	2 7	..	0 4	2 8	..	0 9	2 10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
6	5 6	0 7	3 1	..	0 10	3 2	..	1 3	..	3 4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
7	6 0	1 1	..	3 7	1 4	..	3 8	..	1 9	3 10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

REMARKS.—Cost of production of cocoons shown above includes the value of family labour, material, etc., which is 70 per cent. of the total expenditure incurred under mulberry cultivation. In excluding family labour, the value of family labour, i.e., 70 per cent. is excluded and the cost of production worked out for Mysore and cross-breed under both dry and irrigated i.e., cash outlay only is shown. The cost of production including and excluding family labour 15 years hence is also worked out and shown in the last columns. It is expected that in 15 years the yield from Mulberry gardens would be increased by about 30 per cent. and that all sericulturists would be enabled to use cross-breed layings only.

Enclosure 4.

Supplementary Note to the Memorandum presented to the Indian Tariff Board by the Government of Mysore.

1. The costs of production of mulberry leaf, etc., given at pages 4 and 5 of the Memorandum are the figures collected from individual sericulturists and are meant to indicate the possibilities of reduction in costs. This has been clearly stated in the first paragraph under—III. Results of Improvement Measures Adopted. These figures are not the average figures for the whole State. These figures have to be read along with paragraph one under X.—Measure of Protection Needed, at page 9, and 3rd, 4th and 5th paragraphs under XI.—Period for which Protection is necessary, at page 10 of the Memorandum. The figures given on pages 4 and 5 are from individuals who have been using cross-breed seed while over 70 per cent. of the sericulturists in Mysore use pure Mysore seed only. As such, the figures for cost of production of mulberry leaves, cost of production of cocoons and raw silk should be taken from replies to Questions No. 15, No. 23 and No. 29 of the General Questionnaire, as these are the average figures for the whole State.

2. A supplementary note giving details of the cultural operations, manure applied, cost of manure, etc., is sent separately to further explain the figures given in answer to Question No. 15. The members of the Tariff Board when they toured round the sericultural parts of the Mysore State have seen for themselves the depth of the wells from which water is lifted for irrigating the mulberry gardens, the number of people required to irrigate the gardens and the nature of the cultural operations required.

A note on the relative advantages of tree and bush mulberry is sent separately. The sericulturists cannot expect to get much return from inter-crops when mulberry trees have attained full growth.

The value of the seedlings and saplings given free of cost to sericulturists during the last 12 years is given in answer to Question No. 19 of General Questionnaire.

3. It is stated in the Memorandum that the figures given at pages 4 and 5 are from individuals who have been using cross-breed seed, that owing to shortness of period, it has not been possible to effect universal reductions in cost of cultivation of mulberry and cost of production of cocoons. That it has not been possible, in the short time for which protection is in force, to bring about an appreciable reduction in the costs of cultivation of mulberry and costs of production of cocoons in the State as a whole is indicated in reply to Questions No. 15, No. 23 and No. 29 of General Questionnaire. When more than 70 per cent. of the people have been using Mysore seed for their rearing, it is not correct to draw any conclusions from the figures of cost of those who use cross-breed layings. As a result of action taken so far, the average yield of Mysore cocoons per acre has been increased from 260 lbs. to 350 lbs. It is only when a yield of 375 lbs. of cocoons per acre is established that the cost of production of one pound of cocoons can be five annas.

4. There is no reduction in costs owing to increased productivity as the sericulturists have been merely helped to reduce the losses by provision of seed free from pebrine. The position is clearly explained in the note on "Reduction in the costs of production of Mysore silk" separately sent. When the rearers were using any seed available, they were losing two crops out of every five and the worms would die or had to be thrown away when they had eaten most of the mulberry leaves and when most of the labour would have been expended. This has been prevented now by the use of seed free from pebrine.

5. There was a temporary rise in the prices of cocoons and raw silk some broken periods from December, 1936, till January, 1938. The prices for Mysore cocoons ranged from As. 4-6 to As. 5-8 per lb. from December,

1936 to May, 1937, and from As. 4-6 to As. 5-2 per lb. in August and September, 1937. As has been indicated in reply to Question Nos. 15 and 16 (b), the gardens are planted newly in December and January in areas where irrigation facilities are available and in May and June and September and October in places where no irrigation facilities are available. As high prices for cocoons were obtained prior to the planting period, a large number of people who had given up the industry planted gardens and those who had a small area under mulberry extended their gardens during the planting seasons of 1936 and 1937. From investigations conducted, it is found that about 5,000 acres were newly planted. The first crop of leaves after planting would be ready for harvesting in 5 to 6 months after planting. The existing yields cannot be increased at a moment's notice. The prices of silks and cocoons continued to fall beginning from December, 1937. As a result many people who had planted new gardens and some who had extended their gardens became indifferent, neglected the gardens and some even removed the plants. When the prices went lower than As. 4-6 a pound, it is estimated that out of 5,000 acres newly planted only 1,500 acres survive and the sericulturists are seriously thinking of further reducing the acreage under mulberry as they are not in a position to invest money on the up-keep of gardens. The acreage would certainly have expanded if the prices for cocoons had continued at above five annas a pound for a much longer period. Information collected from about 60 sericulturists regarding gardens, the extent newly planted when the price of cocoons was above five annas a pound and the extent thrown out of mulberry when the price began to slump is furnished in the appended statement. It is seen from the statement that 60 people extended their gardens by about 160 acres when prices for cocoons were above five annas a pound but reduced the acreage by about 130 acres when prices for cocoons went down to about 4 annas a pound. This shows that mulberry cultivation would expand if prices for Mysore cocoons rule at above five annas a pound for a reasonably long period.

Statement showing the acreage under mulberry prior to 1937 and subsequently uprooted owing to fall in the price of cocoons.

No.	Name of Sericulturist.	Extent.				
		Area planted prior to 1937 together with the extent planted in 1937.			Pulled out or neglected when prices of cocoons went down.	Area surviving.
		Area in April 1936.	Planted in May 1937.	Total extent.		
	<i>Kolar Circle.</i>	A. G.	A. G.	A. G.	A. G.	A. G.
	<i>Messrs.</i>					
1	Syed Mohadeon Hindiganal, Hosakote Taluk.	0 30	0 30	1 20	1 20	0 0
2	Syed Ali Sab Hindiganal, Hosakote Taluk.	3 00	0 00	3 00	3 00	0 0
	Carried over					

Statement showing the acreage under mulberry prior to 1937 and subsequently uprooted owing to fall in the price of cocoons—contd.

No.	Name of Sericulturist.	Extent.				
		Area planted prior to 1937 together with the extent planted in 1937.			Pulled out or neglected when prices of cocoons went down.	Area surviving.
		Area in April 1936.	Planted in May 1937.	Total extent.		
	<i>Kolar Circle—contd.</i>	A. G.	A. G.	A. G.	A. G.	A. G.
	Mossra.—					
3	Venkatarayappa, Thimasandra, Chintamani Taluk.	4 00	0 00	4 00	2 00	2 0
4	Krishnappa, Akimangala, Chintamani Taluk.	1 20	0 00	1 20	1 00	0 20
5	Kollanarniah, Thalagawara, Chintamani Taluk.	3 00	0 00	3 00	1 00	2 00
6	Yeletthotada Munisamappa, Thalagawara, Chintamani Taluk.	2 30	0 00	2 30	1 00	1 30
7	Kotamanchi Aniah Setty, Thalagawara, Chintamani Taluk.	2 20	0 00	2 20	1 00	1 20
	Total	17 20	0 30	18 10	10 20	7 30
	<i>Kunigal Circle.</i>					
8	Venkato Gowda, Sondalagere, Kunigal Taluk.	4 0	0 00	4 00	4 00	0 00
	<i>Mugur Circle.</i>					
9	Sannamma, Thottavadi, T. Narasipur Taluk.	0 30	2 00	2 30	2 30	0 00
	Total	22 10	2 30	25 00	17 10	7 30

Statement showing the area under *Mullerry* planted, pulled out or neglected as on 30th June 1938.

Serial No.	Taluk.	Village.	Name of Sericulturist.	Extent.			Area surviving.
				Newly planted when prices of cocoons reached 5 as. per lb.	Pulled out or neglected when prices of cocoons went down.		
				A. G.	A. G.	A. G.	
1	Kolar	Kyalenur	Yathirajappa	7 20	3 20	4 00	A. G.
2	Do.	Do.	Thapaseehwarachari	9 00	4 00	5 00	A. G.
3	Do.	Kadaballi	Naranappa	6 00	4 20	1 20	A. G.
4	Do.	Chandiganahalli	Venkataswamappa	8 00	3 00	5 00	A. G.
5	Chintamani	Konganahalli	Nararana Reddy	4 00	2 30	1 10	A. G.
6	Hosakote	Hindiganal	Mir Habibulla	3 20	3 20	0 00	A. G.
7	Do.	Do.	Nanjunda Chetty	3 20	3 20	0 00	A. G.
8	Do.	Nelavagal	Dashagir Sab	2 20	2 20	0 00	A. G.

Statement showing the area under Mulberry planted, pulled out or neglected as on 30th June 1938—contd.

Serial No.	Taluk.	Village.	Name of Sericulturist.	Extent.			Area surviving.
				Newly planted when prices of cocoons reached 5 sa. per lb.	Pulled out or neglected when prices of cocoons went down.		
				A. G.	A. G.	A. G.	
9	Hosakote.	Banahalli	Messrs.— Kolar Circle—contd. Koncrappa	2 20	1 30	0 30	
10	Do.	Do.	Ramiah	3 00	3 00	0 00	
11	Do.	Do.	Chikka Ramiah	2 30	2 30	0 00	
12	Do.	Do.	Channarayappa	2 20	2 20	0 00	
13	Do.	Do.	Muni Ramia	0 30	0 30	0 00	
14	Do.	Do.	Mohamed Abdul Azees	1 20	1 20	0 00	
15	Do.	Do.	Mohamed Khasam	0 30	0 30	0 00	
Total				57 30	40 10	17 20	

		<i>Kusigal Circle.</i>									
16	Kunigal .	Thittamagalpalaya .	Yankataramaniash, s/o Venkate Gowda .	2	00	2	00	0	00		
17	Do.	Sondalagere .	Narasimbiash .	1	00	1	00	0	00		
18	Do.	Do.	Odo Rangiah .	1	20	1	20	0	00		
19	Do.	Bommenahalli .	Raja Sabab .	1	00	1	00	0	00		
20	Do.	Buktasagara .	Channiah .	1	00	1	00	0	00		
21	Do.	Do.	Shamiah .	0	30	0	30	0	00		
22	Do.	Do.	B. Seetharamiah .	0	20	0	20	0	00		
23	Do.	Kempanahalli .	Lingegowda .	1	00	1	00	0	00		
24	Do.	Do.	Basaviah, s/o Siddiah .	0	30	0	30	0	00		
25	Do.	Do.	Syed Abdul Rahim .	2	00	1	20	0	20		
26	Do.	Do.	Patel Lingegowda .	2	00	2	00	0	00		
27	Do.	Do.	Hulluriah .	1	00	1	00	0	00		
28	Do.	Do.	Basava, s/o Gantaga .	1	00	1	00	0	00		
			Total .	15	20	15	00	0	20		
<i>Mugur Circle.</i>											
29	Nanjangud .	Hunumanapura Grama .	Channamallappa, s/o Mallappa .	2	9	1	9	1	00		
30	Do.	Chikka Bommas Grama	Puttasiddappa, s/o Madappa .	4	0	1	25	2	15		

Statement Showing the area under Mulberry planted, pulled out or neglected as on 30th June 1938—conold.

Serial No.	Talak.	Village.	Name of Sericulturist.	EXTENT.			Area surviving.
				Newly planted when prices of cocoons reached 5 as. per lb.	Pulled out or neglected when prices of cocoons went down.	A. G.	
				A. G.	A. G.	A. G.	
31	Nanjangud	Konannur Grama .	Mallappa	6 0	2 00	4 00	
32	Do.	Desanur Grama .	Paruvathappa, s/o Nanjappa .	7 00	4 00	3 00	
33	Do.	Karya Grama .	Pillamadiyya, s/o Kurimadiyya .	4 20	2 20	2 00	
34	Chamarajanagar	Kamaravadi Grama .	Rudrappa, s/o Basappa	4 20	2 00	2 20	
35	Do.	Demahalli Grama .	Marappa, s/o Puttiah	2 00	1 00	1 00	
36	Do.	Demahalli	Mallappa, s/o Chamaiyana Subbappa .	4 00	2 00	2 00	
37	Do.	Kavuduvadi Grama .	Marappa, s/o Puttappa	2 00	2 00	0 00	
38	Do.	Ganuganurpura	Chikka Mallegowda, s/o Mallegowda .	2 26	2 26	00 00	
39	Do.	Kere Hundi	Basappa, s/o Dodda Lingappa . .	3 8	3 8	0 00	

Mugur Circle—contd.

Measrs.—

40	Do.	.	Do.	.	.	.	Putta Madappa, s/o Basappa	.	.	2	6	2	6	0	00
41	T. Narasipur	.	Mugur	.	.	.	Chikka Rache Gowda, s/o Made Gowda	.	.	4	30	3	30	1	00
42	Do.	.	Do.	.	.	.	Dodda Subiah	.	.	4	15	2	00	2	15
43	Do.	.	Do.	.	.	.	Marappa, s/o Mudda Madappa	.	.	4	24	2	00	2	24
44	Do.	.	Hosahalli	.	.	.	Devappa, s/o Nanappa	.	.	1	20	1	20	0	00
45	Do.	.	Hyakanur	.	.	.	Mallappa, s/o Puttappa	.	.	3	20	3	20	0	00
46	Do.	.	Do.	.	.	.	Madiah, s/o A. K. Basava Madiah	.	.	2	00	2	00	0	00
47	Do.	.	Adibettahalli	.	.	.	N. Chinta Samuel, s/o Chinta Narasiah	.	.	2	00	2	00	0	00
48	Do.	.	Do.	.	.	.	Shivappa, s/o Chikka Marappa	.	.	2	20	2	20	0	00
49	Do.	.	Thottavadi	.	.	.	Chikkanna	.	.	4	00	4	00	0	00
50	Do.	.	Do.	.	.	.	Devi Raj	.	.	2	00	2	00	0	00
51	Do.	.	Do.	.	.	.	I. M. Sivapradevam	.	.	10	00	4	00	6	00
								Total	.	85	18	55	24	29	34
								GRAND TOTAL	.	158	28	110	34	47	34

(7) *Letter No. A. I. 3839, dated the 14th August, 1938, from the Director of Industries and Commerce in Mysore.*

I am enclosing further notes, as shown in the appended list, on the several points on which you wanted information during the course of my evidence yesterday.

Enclosures.

(1) Further note on average production of mulberry and Mysore and cross-breed races of cocoons per acre as desired by the Tariff Board.

(2) Statement showing the area under mulberry in the five taluks which serve as feeders to the Mysore Silk Filatures Co.

(3) Cost of production of cocoons in Japan (cost of producing one pound of cocoons).

(4) Cost of production of Mysore and cross-breed disease-free layings.

(5) Initial expenditure for planting one acre of mulberry (Rainfed).

(6) Initial expenditure for planting one acre of mulberry garden (Tank irrigated).

(7) Initial expenditure for planting one acre of mulberry garden (Deep-well irrigated).

(8) Initial expenditure for planting one acre of mulberry garden (Shallow well).

(9) No. of charkas in the different areas in the State.

Enclosure 1.

Further note on average production of mulberry and Mysore and cross-breed races of cocoons per acre as desired by the Tariff Board.

I.

On page 4 of the Note appended to the Memorandum it has been stated that one acre of rainfed mulberry garden yields from 4,000 to 6,000 lbs. of leaves in a year and the cost of cultivation varies from Rs. 50 to Rs. 84 per year. The yield depends upon the nature of soil, number of bushes per acre, the system of planting and cultural operations and also on the rainfall. Soil conditions vary from village to village and even in the village itself.

It is also stated in reply to question 6 that the quantity of seed required varies from 6 to 8 ounces in the case of rainfed gardens and between 9 to 11 ounces in the case of irrigated gardens. This refers to Mysore race only. In reply to question 15 it is stated that to feed the worms from one ounce of Mysore seed 800 lbs. of leaves are required.

Out of the total area of 18,200 acres of rainfed gardens in 1937-38, about 17,500 acres lie in T. Narasipur area. In this area only about 16 lakhs of disease-free layings of cross-breeds or 11,430 ounces of cross-breeds were supplied during 1937-38, i.e., about 11 per cent., while the rest of the seed was of Mysore race. Information regarding the yield of cocoons from disease-free layings of Mysore race and from cross-breed seed was collected as usual by Government and aided grainages. From the information collected it is found that during 1937-38 the seed used per acre ranged from 5 ounces to 6½ ounces and that the yield of cocoons ranged from 250 lbs. to 325 lbs. of Mysore cocoons per acre. The average yield per acre thus amounted to about 275 lbs. of Mysore cocoons.

From experiments conducted and from experience it has been found that about 16 lbs. of leaves are required to produce one pound of Mysore cocoons in this area. The yield of leaves from one acre of bush mulberry in T. Narasipur area thus varies from 4,000 lbs. to 5,200 lbs. and the average yield of mulberry per acre calculated on the average yield of cocoons for this area amounts to about 4,400 lbs. instead of 4,000 lbs. as given in reply to question 15. Taking the yield of leaves at 4,400 lbs., the cost of production of leaf would be 2.47 pies per lb. instead of 2.7 pies per lb. as given there.

II.

The yield of leaves per acre may also be calculated in another way. We have reliable information that during 1937-38, the production of cocoons in the State was as follows:—

	Lakhs lbs.
(1) From cross-breed layings	85
(2) From Mysore layings	68
Total	103

The amount of leaf required for the above production will be as follows:—

	Lakhs.
35 lakhs of lbs. of cross-breeds at 14 lbs. of leaf per lb.	490
68 lakhs of Mysore cocoons at 16 lbs. of leaf per lb.	1,088
Total	1,578

The total acreage under mulberry was 26,500 made up of—

	Acres.
(1) Rainfed	18,200
(2) Irrigated	8,300

The average yield per acre for irrigated lands in the year 1937-38 was as follows:—

	Lbs.
(1) Tank irrigated	9,000
(2) Deep-well irrigated	10,000
(3) Shallow well irrigated	10,000

The average of these three will be 9,300 lbs. On 8,300 acres of irrigated land the production of leaf will thus be 77,190,000 lbs.

Deducting this from the total production of mulberry leaf of 1,578 lakhs of lbs. the production from 18,200 acres of rainfed land will be 80,610,000 lbs. or 4,430 lbs. per acre.

III.

Details as regards production of cocoons under—(1) rainfed and (2) irrigated land as also under (1) Mysore and (2) cross-breed races are given below. These figures are for the year 1937-38.

	Acreage under		Average yield of cocoons per acre.		Total production of cocoons.	
	Mysore.	Cross-breed.	Mysore.	Cross-breed.	Mysore.	Cross-breed.
			(1) Rainfed—18,200 acres.			
T. Narasipur area— 4,400 pounds of leaf per acre.	15,300	2,200	lbs. 275	lbs. 310	lbs. 4,207,500	lbs. 682,000
Other areas—6,000 lbs. of leaf per acre	700	—	350	—	245,000	—
Total .	16,000	2,200	—	—	4,452,500	682,000
					5,134,500	
			(2) Irrigated—8,300 acres.			
Tank—8,000 lbs. of leaf per acre.	2,000	1,000	500	572	1,000,000	572,000
Deep and shallow well—10,000 lbs. of leaf per acre	2,300	3,000	625	720	1,437,500	2,160,000
Total .	4,300	4,000	—	—	2,437,500	2,732,000
					5,169,500	
Total Rainfed and Irrigated	..	..	..	..	10,304,000	

The quantities of seed actually reared during 1937-38 in rainfed and irrigated gardens are shown below :—

	Average ounces of seed reared.	
	Mysore.	Cross-breed.
<i>Rainfed.</i>		
T. Narasipur area— (4,400 lbs. of leaves)	5½ ounces	5½ ounces
Other areas— (6,000 lbs. of leaves)	7 ounces	—
<i>Irrigated.</i>		
Tank— (8,000 lbs. of leaves)	10 ounces	8 ounces
Shallow and deep wells— (10,000 lbs. of leaves)	11 ounces	9 ounces

Enclosure 2.

Statement showing the area under mulberry in the five Taluks which serve as feeders to the Mysore Silk Filature Co., 1937-38.

	Acres.
1. Chamarajanagar Taluk	6,400
2. T. Narasipur Taluk	5,500
3. Yelandur Taluk	4,000
4. Nanjangud Taluk	1,200
5. Malavalli Taluk	300
Total	17,400

A few villages of Santemarahalli Hobli of Chamarajanagar Taluk, of Mugur Hobli of T. Narasipur Taluk, and Agara Hobli of Yelandur Taluk are adjacent to sericultural villages of Kollegal Taluk. Roughly about 2,000 acres of land under mulberry in the above villages may be taken to be within a radius of five miles of Kollegal sericultural villages.

The total area under mulberry in all the Taluks of Mysore District is about 18,600 acres including Mandya, and Maddur Taluks. But these two Taluks are nearer Channarayana and are within the jurisdiction of Channarayana Circle. About 400 acres of mulberry in these Taluks are irrigated while about 300 acres in Chamarajanagar and Yelandur Taluks are irrigated.

Enclosure 3.

Cost of production of cocoons in Japan. (Cost of producing one pound of cocoons.)

Year.	Cost of producing one pound of cocoons.	At normal rate of exchange (100 Yen = Rs. 137.)	At prevailing exchange rate.
	Yen.	As. r.	As. p.
1934	0.448	9 9.8	5 7.7
1935	0.479	10 6.1	5 11.5
1936	0.468	10 3.0	5 9.7
1937	0.571	12 5.0	0 7.0

Enclosure 4.

Cost of production of Mysore and cross-breed disease-free layings.

It is difficult to differentiate between the cost of production of Mysore layings and cross-breed layings in the grainages which prepare pure Mysore, pure foreign and cross-breed layings. The cost of production of one ounce of seed, i.e., 140 layings in such grainages is about Rs. 1-14-9. The Government Grainage at Kunigal produces Mysore layings only. This grainage is situated in the centre of seed cocoon producing area. The cost of production of Mysore layings in this grainage is Rs. 1-1-6 per ounce.

Enclosure 5.

Initial expenditure for planting one acre of mulberry (Rainfed).

	Rs. A.	Rs. A.
1. Ploughing and levelling—		
(a) Ploughing, 15 ploughs at Re. 1 per plough (deep ploughing)	15 0	
(b) Levelling, 8 male coolies at As. 6 each and 8 female coolies at As. 2 each per day	4 0	
(c) Removing the grass weeds, etc., 3 female coolies at As. 2 per day for $\frac{1}{4}$ a day	0 3	
	<hr/>	19 3
2. Manure and manuring—		
(a) Manure, 10 carts (cattle manure) at Re. 1 per cart	10 0	
(b) Transport charges for 10 carts	1 8	
(c) Loading and unloading, 1 male cooly at As. 6 and 2 female coolies at As. 2 each, per day	0 10	
(d) Manuring, 1 male cooly at As. 6 and 1 female cooly at As. 2 per day	0 8	
	<hr/>	12 10
3. Preparing rows—		
1 plough for half-a-day at Re. 1 per plough		0 8
4. Cuttings—		
(a) 1 cart load of cuttings at Rs. 4	4 0	
(b) Transport, loading, etc.	6 0	
	<hr/>	10 0
5. Planting cuttings—		
(a) Preparing the cuttings—4 male coolies at As. 6 each and 3 female coolies at As. 2 each	1 14	
(b) Planting charges—7 male coolies at As. 6 each, and 11 female coolies at As. 2 each, and 1 female cooly at As. 2 per day for $\frac{1}{4}$ a day	4 1	
	<hr/>	5 15
6. Watering—		
1st watering when planting—12 male coolies at As. 6 each, and 4 female coolies at As. 2 each per day	5 0	
Watering for two months after planting—8 times a month, i.e., 16 times for 2 months, 3 male coolies at As. 6 each and 1 female cooly at As. 2, for each watering	20 0	
	<hr/>	25 0
7. Weeding, 3 times		5 0
	<hr/>	<hr/>
Total		78 4

Enclosure 6.

*Initial expenditure for planting one acre of Mulberry Garden,
(Tank Irrigated.)*

	Rs. A.
	Rs. A.
1. Digging and levelling—	
(a) Deep digging, 100 male coolies at As. 4 each	25 0
(b) Levelling, 50 male coolies at As. 4 each	12 8
	— 37 8.
2. Manure and manuring—	
(1) Manure—	
(a) 25 carts cattle manure at Rs. 1 per cart	25 0
(b) Transporting charges at Rs. 1 per cart per day for 2 days	2 0
(c) Loading and unloading, 2 female coolies at As. 2 per day each, for 2 days	0 3
(2) Manuring—2 male coolies at As. 4 each, and 6 female coolies at As. 2 each	1 4
	— 28 12
3. Preparing rows . . . . .	...
4. Cost of cuttings—	
(a) 2 carts at Rs. 10 per cart	20 0
(b) Transport charges including loading and unloading, etc., at Rs. 1 per cart	2 0
	— 22 0
5. Planting charges—Preparing the cuttings and planting—20 male coolies at As. 4 each (Rs. 5) and 30 female coolies at As. 2 each (Rs. 3-12)	8 12
6. Watering—8 times per month for 3 months, 1 male cooly at As. 4 each time	6 0
7. Weeding—Once, 15 female coolies at As. 2 each	1 14
8. Miscellaneous . . . . .	...
	—
Total	104 14
	—

Enclosure 7.

Initial expenditure for planting one acre of Mulberry Garden.

(Deepwell Irrigated.)

		Rs. A.
	Rs. A.	
1. Digging and levelling—		
(a) Deep digging, 160 male coolies at As. 4 each	40 0	
(b) Levelling, 50 male coolies at As. 4 each	12 8	
	<hr/>	52 8
2. Manure and manuring—		
(a) Manure, 25 carts at As. 12 per cart .	18 12	
(b) Transport charges at As. 4 per cart .	6 4	
(c) Loading and unloading, 2 male coolies at As. 4	0 8	
	Rs. A.	
(d) Manuring, 7 male coolies at As. 4	1 12	
11 female coolies at As. 2	1 6	
	<hr/>	3 2
	<hr/>	28 10
3. Preparing rows . . . . .	...	...
4. Cost of cuttings—		
(a) 2 carts at Rs. 10 per cart	20 0	
(b) Transport charges at Rs. 1 per cart	2 0	
	<hr/>	22 0
5. Planting charges (including initial watering)—		
(a) Preparing the cuttings—10 male coolies at As. 4 each	2 8	
(b) Planting charges including initial watering—		
50 male coolies at As. 4 each	12 8	
10 female coolies at As. 2 each	1 4	
	<hr/>	16 4
6. Watering—For three months—24 times—One pair bullocks and a cooly each time at Re. 1	24 0	
7. Miscellaneous	5 0	
	<hr/>	
	Total .	148 6
		<hr/>

Enclosure 8.

Initial expenditure for planting one acre of Mulberry Garden.

(Shallow Well.)

	Rs. A.	Rs. A.
1. Digging and levelling—		
(a) Deep digging, 100 coolies at As. 4 each	25 0	
(b) Levelling, 40 coolies at As. 4 each	10 0	
		35 0
2. Manure and manuring—		
(a) Manure, 20 carts at As. 8 per cart	10 0	
(b) Transport at Rs. 1-2 for 10 carts (for 20 carts)	2 4	
(c) Loading and unloading, 2 coolies at As. 4 each	0 8	
(d) Manuring—2 male coolies at As. 4 each and 4 female coolies at As. 3	1 4	
		14 0
3. Preparing rows . . . . .	...	...
4. Cost of outtings—		
(a) 2 cart-loads of cuttings at Rs. 8 per cart	6 0	
(b) Transport charges including loading unloading at As. 8 per cart	1 0	
		7 0
5. Planting charges—		
(a) Preparing the cuttings, 8 male coolies at As. 4 and 8 female coolies at As. 3	3 8	
(b) Planting charges, 8 male coolies at As. 4 and 24 female coolies at As. 3	6 8	
		10 0
6. Watering—10 times at 4 male coolies As. 4 each and 8 female coolies at As. 3 each for each time= 2-8x10		25 0
7. Weeding—Twice at Rs. 1-8 each time		3 0
8. Miscellaneous charges including repairs, etc.		4 0
Total		98 0

Enclosure 9.

Number of Charkas in the different areas in the State.

T. Narasipur	800
Kolar	1,100
Bangalore (Channapatna)	500
Kunigal	100
Total	2,500

(8) *Statements regarding costs of production of raw silk in Mysore supplied by the representatives of the Government of Mysore in the course of oral evidence in August, 1938.*

1.—**COST OF PRODUCTION OF CHARKHA SILK.**

(Average Production taken at $1\frac{1}{2}$ lbs. per day per charkha.)

Quality.	1st.	2nd.	3rd.
*Rendita	13.5	11.7	10.8
<i>Details—</i>	(20.25 lbs.)	(17.55 lbs.)	(16.2 lbs.)
1. Cost of cocoons at Re. 0.4-0 per lb.	Rs. A. P. 5 11 2	Rs. A. P. 4 15 0	Rs. A. P. 4 8 11
2. Cost of labour	0 10 0	0 10 0	0 8 0
3. Cost of fuel	0 4 0	0 4 0	0 4 0
4. Cost of water (including wage of waterman).	0 2 0	0 2 0	0 2 0
5. Selling expenses	0 2 3	0 2 3	0 2 3
6. Transport charges	0 3 0	0 2 9	0 2 6
7. Contingencies (transport charges of silk, cost of oil, thread, skein making, steaming of cocoons, etc.).	0 1 6	0 1 6	0 1 6
8. Supervision and management .	0 1 3	0 1 3	0 1 3
9. Cost of producing $1\frac{1}{2}$ lbs. of silk.	7 3 2	6 6 9	5 14 5
10. Cost of producing 1 lb. of silk .	4 12 9	4 4 6	3 14 11
11. Deduct—Cost of $\frac{1}{2}$ lb. of waste at Re. 0.5-4 per lb.	0 4 0	0 4 0	0 4 0
12. Net cost of producing 1 lb. of silk.	4 8 9	4 0 6	3 10 11
13. Interest on working capital .	0 2 5	0 2 2	0 2 0
14. Depreciation	0 0 3	0 0 3	0 0 3
15. Profit	0 2 0	0 2 0	0 2 0
16. Total cost of 1 lb. of silk .	4 13 5	4 4 11	3 15 3
17. Re-reeling charges	0 3 0	..	..
18. Fair selling price per lb. .	5 0 5	4 4 11	3 15 2

*N.B.—Rendita taken—Average of rendita given for Mysore cocoons in reply to Question No. 29 and the rendita assumed by the President of the Tariff Board for cross-breed cocoons.

II-A.—COST OF PRODUCTION OF CHARKHA SILK WITH DIFFERENT PRICES OF COCOONS FOR DIFFERENT QUALITIES.

(Average Production taken at 1½ lbs. per day per charkha.)

Quality.	1st.	2nd.	3rd.
Rendita	13.5	11.7	10.8
Details—			
1. Cost of cross-bred cocoons at Re. 0.4.6 per lb. 1st quality, at Re. 0.4.3 per lb. 2nd quality and at Re. 0.4.0 per lb. 3rd quality.	(20.25 lbs.) Rs. A. P. 5 11 2	(17.55 lbs.) Rs. A. P. 4 10 8	(16.2 lbs.) Rs. A. P. 4 0 10
2. Cost of labour	0 10 0	0 10 0	0 8 0
3. Cost of fuel	0 4 0	0 4 0	0 4 0
4. Cost of water (including wage of waterman).	0 2 0	0 2 0	0 2 0
5. Selling expenses	0 2 3	0 2 3	0 2 3
6. Transport charges . . .	0 3 0	0 2 0	0 2 6
7. Contingencies (transport charges of silk, cost of oil, throwl, skein making, steaming of cocoons, etc.).	0 1 6	0 1 6	0 1 6
8. Supervision and management .	0 1 3	0 1 3	0 1 3
9. Cost of producing 1½ lbs. of silk.	7 3 2	6 2 3	5 6 4
10. Cost of producing 1 lb. of silk .	4 12 9	4 1 6	3 9 7
11. Deduct—Cost of ½ lbs. of waste at Re. 0.5.4 per lb.	0 4 0	0 4 0	0 4 0
12. Net cost of producing 1 lb. of silk.	4 8 9	3 13 6	3 5 7
13. Interest on working capital .	0 2 5	0 2 2	0 2 0
14. Depreciation	0 0 3	0 0 3	0 0 3
15. Profit	0 2 0	0 2 0	0 2 0
16. Total cost of 1 lb. of silk .	4 13 5	4 1 11	3 9 10
17. Re-reeling charges (1st quality only).	0 3 0	..	..
18. Fair selling price per lb. .	5 0 5	4 1 11	3 9 10

II-B.—COST OF PRODUCTION OF CHARKHA SILK.
(Average production taken at 1½ lbs. per day per charkha.)

Quality.	1st	2nd	3rd
Rendita	14	12	11
Details—			
1. Cost of cocoons @ As. 4-6 per lb. 1st quality, @ As. 4-3 per lb. 2nd quality and @ As. 4-0 per lb. 3rd quality.	21 lbs. Rs. A. P. 5 14 6	18 lbs. Rs. A. P. 4 12 6	16½ lbs. Rs. A. P. 4 2 0
2. Cost of labour	0 10 0	0 10 0	0 8 0
3. Cost of fuel	0 4 0	0 4 0	0 4 0
4. Cost of water (including wage of waterman).	0 2 0	0 2 0	0 2 0
5. Selling expenses	0 2 3	0 2 3	0 2 3
6. Transport charges	0 3 0	0 2 9	0 2 6
7. Contingencies (transport charges of silk, cost of oil, thread, skein making, Steaming of cocoons, etc.).	0 1 6	0 1 6	0 1 6
8. Supervision and management	0 1 3	0 1 3	0 1 3
9. Cost of producing 1½ lbs. of silk.	7 6 6	6 4 3	5 7 6
10. Cost of producing 1 lb. of silk	4 15 0	4 2 10	3 10 4
11. Deduct—Cost of ½ lbs. of waste @ As. 0-5-4 per lb.	0 4 0	0 4 0	0 4 0
12. Net cost of producing 1 lb. of silk.	4 11 0	3 14 10	3 6 4
13. Interest on working capital .	0 2 5	0 2 2	0 2 0
14. Depreciation	0 0 3	0 0 3	0 0 3
15. Profit	0 2 0	0 2 0	0 2 0
16. Total cost of 1 lb. of silk .	4 15 8	4 3 3	3 10 7
17. Re-reeling charges (1st quality only).	0 3 0	..	..
18. Fair selling price per lb. .	5 2 8	4 3 3	3 10 7

III.—ESTIMATE OF THE COST OF WORKING A 200 BASIN FILATURE WITH 20/24 DENIER.

	Rs.	s.	p.
1. Total quantity of cocoons rendita 13 (cross bred) production 1·25 lbs. per basin— $1·25 \times 200 \times 13 \times 300$ days—975,000 lbs. @ 4 annas 6 pies per lb. Quantity of silk produced 75,000 lbs.	2,74,218	12	0
2. Transport charges @ 4 pies per lb. for 975,000 lbs. . . .	20,312	8	0
3. Stifing charges @ 2 pies per lb. for 975,000 lbs. . . .	10,156	4	0
4. Cost of labour (as given by Mysore Filatures Limited) . . .	45,000	0	0
5. Cost of supervision and management	23,712	0	0
6. Cost of power	as given by the Mysore Filatures Limited.		
7. Cost of light			
8. Cost of fuel			
9. Cost of water			
10. Cost of repairs, renewals, etc. @ 1 % on the value of machinery Rs. 63,000.	630	0	0
11. Miscellaneous @ 3 pies per lb.	1,171	14	0
12. Selling expenses at 6 pies per lb.	2,343	12	0
Total	3,97,545	2	0
Deduct—Value of waste @ .63 lbs. per lb. of silk ($63/100 \times 75,000$)= 47,250 lbs. @ annas 12 per lb.	35,437	8	0
Total works expenditure	3,62,107	10	0

Overheads—

(a) Depreciation—

	Rs.	
Buildings @ $2\frac{1}{2}$ % on Rs. 80,000	2,000	
Plant and machinery 5 % on Rs. 63,000	3,150	
Tools and scientific appliances 10 % on Rs. 5,000	500	
Motor vans 20 % on Rs. 7,000	1,400	
	7,050	0 0
(b) Interest on working capital @ 5 % [for 3 months output of cocoons (243,750 lbs.) and silk (18,750 lbs.)] on Rs. 1,67,940-15-6.	8,397	0 9
(c) Profit @ 6% on capital expenditure of Rs. 1,60,000 (as given by Mysore Filatures Limited).	9,600	0 0
Total cost of production	3,87,154	10 9

IV.—COST AT THE END OF THE PERIOD OF PROTECTION.

Estimate of the cost of working a 200 basin filature with 20/24 denier.

	Rs.	a.	p.
1. Total quantity of cocoons <i>rendita</i> 13 (cross bred) production 1.25 lbs. per basin= $1.25 \times 200 \times 13 \times 300$ days=975,000 lbs. @ 4 annas per lb. quantity of silk produced 75,000 lbs.	2,43,550	0	0
2. Transport charges @ 4 pias per lb. for 975,000 lbs.	20,312	8	0
3. Stifling charges @ 2 pias per lb. for 975,000 lbs.	10,158	4	0
4. Cost of labour (as given by Mysore Filatures Limited)	45,000	0	0
5. Cost of supervision and management	23,712	0	0
6. Cost of power	20,000	0	0
7. Cost of light			
8. Cost of fuel			
9. Cost of water			
} as given by the Mysore Filatures Limited.			
10. Cost of repairs, renewals, etc., @ 1 % on the value of machinery Rs. 63,000.	630	0	0
11. Miscellaneous @ 3 pias per lb.	1,171	14	0
12. Selling expenses @ 6 pias per lb.	2,343	12	0
Total	3,67,076	6	0
<i>Deduct</i> —Value of waste @ 63 lbs. per lb. of silk ($63/100 \times 75,000$) = 47,250 lbs. @ annas 12 per lb.	35,437	8	0
Total works expenditure	3,31,638	14	0

Overheads—

	Rs.
(a) Depreciation—	
Buildings @ $2\frac{1}{2}$ % on Rs. 80,000	2,000
Plant and machinery 5 % on Rs. 63,000	3,150
Tools and scientific appliances 10 % on Rs. 5,000	500
Motor vans 20% on Rs. 7,000	1,400
	7,050 0 0
(b) Interest on working capital @ 5 % [for 3 months output of cocoons (243,750 lbs.) and silk (18,750 lbs.)] on Rs. 1,62,700-9-6.	7,635 5 3
(c) Profit @ 6 % on capital expenditure of Rs. 1,60,000 (as given by Mysore Filatures Ltd.).	9,600 0 0
Total cost of production	3,55,924 3 3
Rs. 4-11-11 per lb. of raw silk	or

(9) Statement supplied by the representatives of the Government of Mysore at the time of oral evidence regarding net available supplies of silk. (Year April to end of March.)

(Mysore State)

Year.	Production		Imports.		Total supplies.		Exports.		Net supply available for consumption.
	Raw silk.	Imports.	Raw and silk twists.	Total supplies.	Exports.	Raw and silk twists.			
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	
1927-28	1,000,000	225,628	1,225,628	670,760	554,868				
1928-29	920,000	33,820	953,820	619,650	334,170				
1929-30	880,000	30,940	910,940	552,844	358,096				
1930-31	860,000	41,554	901,554	385,415	516,139				
1931-32	740,000	40,978	780,978	367,851	413,127				
1932-33	506,300	189,004	695,304	378,350	616,954				
1933-34	788,800	250,066	1,038,866	433,915	604,951				
1934-35	755,700	326,509	1,082,209	463,186	619,023				
1935-36	741,700	416,694	1,158,394	542,674	615,720				
1936-37	703,600	449,115	1,152,715	533,658	619,057				
1937-38	795,000	553,372	1,348,372	486,144	862,228				

(10) Statement showing the average prices of *SILK WASTE* in the State during each month for the years 1934-35 to 1937-38 (April to March).

(Handed in at the time of oral evidence by the representatives of the Government of Mysore.)

Month.	Prices per Maund of 28 lbs.				
	1934-35.	1935-36.	1936-37.	1937-38.	1938-39 (4 months only).
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
April	2 4 0	2 14 0	4 12 0	8 12 0	10 8 0
May	2 4 0	3 4 0	4 12 0	8 12 0	10 3 0
June	2 4 0	4 9 0	4 12 0	8 12 0	9 0 0
July	0 15 0	4 9 0	4 12 0	8 12 0	9 0 0
August	1 11 0	5 4 0	4 12 0	8 14 0	
September	1 11 0	4 12 0	5 12 0	9 8 0	
October	1 11 0	4 12 0	6 2 0	9 8 0	
November	1 11 0	4 12 0	6 8 0	9 8 0	
December	1 12 0	4 12 0	7 2 0	9 8 0	
January	2 4 0	4 12 0	8 14 0	9 8 0	
February	2 6 0	4 12 0	8 12 0	9 8 0	
March	2 9 0	4 12 0	8 12 0	10 8 0	
Total for 12 months	25 6 0	53 12 0	75 10 0	111 6 0	
Monthly average	1 15 2	4 7 8	6 4 10	9 4 6	
Average price per lb.	0 1 1	0 2 6	0 3 7	0 5 4	

NOTE.—The prices furnished above represent the average of the prices published in the "Weekly Market Reports and Bulletins" of the Mysore Chamber of Commerce.

(11) Statement showing the Total Exports from Japan to the various Countries from 1925 to 1936 supplied by the representatives of the Government of Mysore.

Year.	Quantity of silk exported in lbs.	Total value in Yen.	Average rate per lb. of silk in Yen.
1925	57,682,164	877,721,000	15.21
1926	58,202,541	731,928,000	12.57
1927	68,766,844	741,137,000	10.78
1928	72,483,032	732,607,000	10.11
1929	76,030,301	781,040,000	10.27
1930	86,066,150	416,646,000	4.85
1931	73,635,959	355,393,000	4.83
1932	72,266,311	382,137,000	5.29
1933	63,907,119	390,781,000	6.11
1934	66,871,447	286,484,000	4.26
1935	73,169,816	387,032,000	5.29
1936	67,238,150	393,463,000	5.85

(Extract from Table 7, on page 228 of the Japan Silk Year Book, 1935-36.)

(100 Kins=132.277 lbs.)

(12) Statement showing the Imports of Japanese Silk into England from 1925 to 1937 supplied by the representatives of the Government of Mysore.

Year.	Quantity of silk imported (in lbs.)	Value in Yen.	Average rate per lb. of silk (in Yen).
1925	108,599	1,667,000	15.35
1926	169,108	2,066,000	12.22
1927	298,549	3,217,000	10.77
1928	372,624	3,716,000	9.97
1929	417,863	4,121,000	9.86
1930	443,128	2,912,000	6.57
1931	1,132,769	6,160,000	5.44
1932	1,713,913	9,256,000	5.40
1933	2,431,780	14,654,000	6.02
1934	3,026,233	14,237,000	4.70
1935	3,761,032	21,450,000	5.70

(Extract from Table 7, on page 228 of the Japan Silk Year Book—1935-36.)

(100 Kins=132.277 lbs.)

1936	3,655,547	..	..
1937	4,058,367	..	..

(13) *Statement showing the Imports of Japanese silk into British India from 1925 to 1935 supplied by the representatives of the Government of Mysore.*

Year.	Quantity of silk in lbs.	Value in Yen.	Average rate per lb. of silk (in Yen).
1925	1,720	26,000	15.11
1926 . . . . .	..	..	..
1927	926	10,000	10.79
1928	2,116	27,000	12.76
1929	?	?	?
1930	7,937	45,000	5.67
1931	26,101	130,000	4.98
1932	18,254	70,000	3.83
1933	20,101	153,000	5.25
1934	477,652	1,480,000	3.09
1935	1,803,200	5,533,000	3.07

(Extract from Table 7, on page 228 of the Japan Silk Year Book—1935-36.)

(100 Kins=132.277 lbs.)

(14) *Extract from the Textile Manufacturer, July, 1938, supplied by the representatives of the Government of Mysore.*

THE SILK MARKET.

With the two principal silk suppliers—Japan and China—engaged in widespread hostilities, wide fluctuations in silk prices might have been expected. Actually, according to the review of the silk trade in the season 1937 by H. T. Gaddum & Co., for the last eight months the price of Extra Japan, 13/15 denier, moved only between 7s. and 6s. 6d. per lb. The reason is that the Japanese Government is exercising a systematic control over the price of silk. The effect of the hostilities, and other international trouble, on silk has been indirect; it is the consumption of raw silk in the United States of America, which has fallen severely. Constant intervention by the Japanese Government has been necessary to maintain the value in spite of reduced production and the elimination of the main competitor. If the yen is devalued further the same control would serve to raise the Yen value of silk, and the silk is being used in Japan to avoid importing cotton or wool. Quotations of Italian silk on this market are entirely misleading. Hero totalitarian efforts, home use of silk, a bargain with the United States of America, and finally chance frost damage early this year have caused prices to be fantastically nominal. The home market has suffered severely from imports, which some say is dumping, of both fabrics, chiefly in frocks, and hosiery.

Rayon continues to encroach on silk for fabrics, but silk to expand for hosiery use for which Japans are primarily the demand. Hence the loss of China has been less keenly felt. The waste silk or spun silk trade has shown no improvement in the last twelve months, and at present is worse than a year ago. Regular supplies of Tussah Waste have been cut off by the troubles in China and the prices have remained high, being never less than 1s. 4½d. per lb., whereas, Canton stoam waste has fallen from 1s. 5d. to 11d. The estimates of British takings of raw silk are 39,000 bales against 33,300 bales in 1936-37, and waste silk 17,200 bales against 17,700 bales (28,400 bales in 1934-35).

(15) *Extract from the Textile Manufacturer Year Book, 1938 (page 452), regarding raw silk supplies and types, supplied by the representatives of the Government of Mysore.*

Filature silk (raw silk, grey silk, gum silk or grego) is first of all classified as to its country of origin and variety or class of worm. The silk produced by the *Bombyx Mori* worm is considered to be the best procurable from any country. Japan produces an excellent quality silk from the *Yama-Mai* worm. China and India from various types of the *Bombyx* group as well as silks from the *Antherca* and *Attacus* groups of worms, in each case the particular types are indicated in quotations.

Italian silks, especially from "Piedmont", are the best reeled and most reliable silks, but the marketable output is very limited. France produces good quality silk, but most is absorbed by their own manufacturing. "Cevennes" is the best. Japanese filature silks are now the most important, as the export represents about 60 per cent. of the world total production.

The Japanese silks are excellent in quality, clean, even, regular in count, good in colour (white and a small amount of yellow), elastic, lustrous, fairly easy to degum, satisfactory in dyeing, readily weighted, and suitable for warp or weft in weaving as well as for knitting yarns. The United States of America now uses over 70 per cent. of the world's production of raw silk. Japanese raw silk is passed from filature to exporter through brokers. It is not supposed to be exported until it has been tested and passed by the Government Raw Silk Inspection Bureau.

The export of raw silk from China is now only about 20 per cent. of the world's output. The best quality Chinese filature silk is equal in every respect to any other, with the extra advantage of natural qualities, but the amount produced is very limited.

Shanghai is the market for northern and central districts, and the silk from this port is classed as China raws. Canton is the market for the more inferior grades of raw silks, which are not so clean, even, or reliable. Canton silk is frequently used for heavily twisted crepe yarns and for fillings.

In Indian there are many "Native" Indian silk worms which give an excellent variety of silk, but the mulberry-fed *Bombyx* is the most favoured in the province of Bengal, Mysore, Madras, Kashmir, Burma, Assam and Punjab. Tussah (wild silk) is obtained from Chutia, Nagpur, Orissa and other parts of Bengal.

The total product of raw silk in India is estimated at 2,000,000 lbs. per annum, of this Mysore State and the Kollegal District of the Madras Presidency supplies about 1,500,000 lbs.

India also imports from China about 2,000,000 lbs. of raw silk per annum. The best filature silks are of an excellent quality.

Other countries and districts where sericulture is now practised are Spain, Germany, Hungary, Czechoslovakia, Yugoslavia, Rumania, Bulgaria, Greece, Turkey, Cyprus, Brusa, Syria, Persia, Caucasia, Turkestan and Indo-China.

(16) *Statements supplied by the representatives of the Government of Mysore at the time of oral evidence.*

Cost of producing Mysore Race cocoons (per lb.) taking an yield of 50 lbs.

	Rs. A. P.
1. Cost of seed, 1 ounce	0 11 2
2. Extra labour	2 0 0
3. Cost of leaves (800 lbs.) at 2·2 pies per lb.	9 2 8
4. Appliances	1 0 0
5. Miscellaneous	0 6 0
Total	13 3 10
Hence cost per lb. of cocoons	0 4 2·7 or
	0 4 3

Cost of production of 1 lb. of cross-bred cocoons taking an yield of 70 lbs.

	Rs. A. P.
1. Cost of seed	1 6 5
2. Extra labour	2 0 0
3. Cost of leaves (980 lbs.) at 2·2 pies per lb.	11 3 8
4. Appliances	1 0 0
5. Miscellaneous	0 6 0
Total	16 0 1
Hence cost per lb. of cocoons	0 3 8

About Rs. 12 extra per acre per year for family labour, would give sufficient inducement for the family.

(17) *Letter from the Tariff Board, No. 841, dated the 9th August, 1938, to the Secretary to the Government of H. H. the Maharaja of Mysore, Development Department, Bangalore.*

I am directed to forward a copy of the notes* submitted to the Board by Mr. F. L. Silva on the following subjects and to say that the Board would be glad to be furnished as early as possible, with the comments of His Highness' Government on the views expressed therein:—

- (1) Production of silk.
- (2) Cross-bred seed.
- (3) Cultivation of Univoltine races.
- (4) The Mysore cocoon *versus* the Univoltine cocoon.
- (5) Measure of protection.

* Printed with the replies furnished by the Kollegal Silk Filatures, Madras.

(18) Letter No. C. I. 412/37-38, dated the 28th August, 1938, from the Director of Industries and Commerce in Mysore.

I have the honour to forward the following additional notes as required by the President of the Tariff Board:—

- (1) Quantity of silk thrown by hand.
- (2) Percentage of silk content in foreign cocoons in their home countries.
- (3) Acreage under mulberry in deep and shallow well irrigated areas.
- (4) Rearing period of Mysore and Cross-breed worms indicating the number of feedings per day.
- (5) Variation between 42,000 worms per ounce of seed and 27,500 cocoons produced. Question No. 14.
- (6) Silk worm gut.
- (7) Decline in exchange.

Enclosure 1.

Statement showing the total quantity of raw silk twisted by hand in the several centres in the State for which information has been collected.

Serial No.	Name of the Centre.	No. of hand twisting machines.	Quantity of raw silk twisted per year.
			Lbs.
1.	Bangalore City	25	3,750
2.	Kankanhalli	2	300
3.	Magadi	5	750
4.	Chikballapur	2	300
5.	Chikkanayakanahalli	6	900
6.	Sindughatta	"Takali" twisting.	1,500
7.	Molakalmuru	30	4,500
8.	Other centres	10	1,500
	Total	80	13,500

NOTE.—The quantity of raw silk twisted on each machine is estimated at $\frac{1}{2}$ lb. per day.

Enclosure 2.

Percentage of Silk Content in Cocoons produced in France, Italy, and Japan.

Information regarding the silk content of cocoons produced in Italy and France, as far as available, is noted below:—

Race.		Percentage of silk content
I. France —		
1.	Cevennes	14.044
2.	Pirenei	14.486
3.	Varo	14.400
Average		14.31 per cent.

	Race.	Percentage of silk content.
II. Italy—		
1.	Ascolana	14.366
2.	Brianza	14.969
3.	Giallo	15.162
4.	Istria	13.491
5.	Perugia	13.031
6.	Umbra	15.830
7.	Giallo Indigenous	14.549
8.	Fossombrone	14.856
9.	Giallo Italia	14.951
10.	Giallo Milanese	14.759
	Average	14.594 per cent.

The above information is rather old.

The following is the information pertaining to the hybrids reared in an Experimental Station (Ascoli Piceno) in Italy during 1936:—

	Race.	Percentage of silk content.
1.	Ascoli Yellow x Kokusan 18	15.60
2.	Bianco Chinese x Bianco Italy	13.25
3.	Bianco Italy x Bianco Chinese	12.20
4.	Majella x Italian White	11.92
5.	Majella x Kokusan 18	14.77
6.	Majella x Chinese Yellow	14.15
7.	Chinese Yellow x S. A. No. 2	11.93
8.	S. A. No. 25 x Chinese Yellow	13.52
9.	S. A. No. 2 x Majella	13.60

III. Japan—1937—

	Per cent.
Spring	14 to 17
Autumn	12 to 16

Enclosure 3.

Acreage under Mulberry in irrigated areas.

	Area in 1931-32.	Area in 1937-38.
	Acres.	Acres.
1. The total acreage	9,600	8,300
2. Tank irrigated gardens	3,800	3,000
3. Deep well irrigated gardens	2,800	2,600
4. Shallow well irrigated gardens	3,000	2,700
	<hr/> 9,600	<hr/> 8,300

Enclosure 4.

Rearing period, i.e., time taken from first feeding after hatching to last feeding before mounting, of Pure Mysore and Cross-breed worms in Mysore.

The rearing period depends upon the temperature and humidity conditions prevailing. Generally, during the cold months of December and January, the period is longer than during the rest of the year. The rearing period depends upon the skill of the rearer, the attention paid during rearing, the quality and quantity of leaves fed.

During the rearing period, the worms moult four times. During this period of molting, the worms do not eat food.

The following statement indicates roughly the average rearing period in Mysore:—

No.		From hatching till going to I moult.	Period of I moult.	From after I moult till going to II moult.	Period of II moult.	From after II moult till going to III moult.	Period of III moult.
	<i>I. Pure Mysore.</i>	days.	hrs.	days.	hrs.	days.	hrs.
1	Cold months (December and January).	5	24	3	24	4	24
2	Other months of the year.	4½	24	3	24	4	24
	<i>II. Cross-Breeds.</i>						
1	Cold months (December and January).	5	24	3	24	4	24
2	Other months of the year.	5	24	2½	24	3½	24

No.		From after III moult till going to IV moult.	Period of IV moult.	From after IV moult till ripening.	Total No. of days.	Active period.	Resting period.
	<i>I. Pure Mysore.</i>	days.	hrs.	days.	days.	days.	days.
1	Cold months (December and January).	4½	36	11	32	27½	4½
2	Other months of the year.	4½	36	9	29½	25	4½
	<i>II. Cross-Breeds.</i>						
1	Cold months (December and January).	4½	36	8	29	24½	4½
2	Other months of the year.	4½	36	6	26	21½	4½

Number of feedings given in each age.—The number of feedings given depends upon the age of the worms, the temperature and humidity conditions prevailing, the quality of leaves and the appetite of the worms. Generally speaking the young worms up to the 2nd moult require careful handling as the leaves fed to these worms are tender, have been cut to very thin pieces, are liable to dry up soon and as it would be difficult to find out whether the worms have eaten up the leaves fed. The young worms are very tiny and occupy very little space. The young worms have to be fed with small quantities of leaves very often during the hot portions of the day.

The appetite of the worms increases just in the middle of the eating period in each stage. Immediately after brushing or after coming out of moult, the worms do not have good appetite, later they have good appetite and just before going to moult the appetite decreases. Hence, great attention is required so as to avoid overfeeding when worms have no appetite and to avoid underfeeding when worms have good appetite. By careful observation and skilful feeding, the quantity of leaf consumed can be reduced and the worms given enough food when required so as to make them strong and healthy.

The following statement roughly indicates the number of feedings given per day in each age:—

	Average temperature 75° F. Average Humidity 70 per cent.	Average temperature 80° F. Average Humidity 70 per cent.
1. From hatching till going to I moult	8 to 9	10 to 12
2. From after I moult till worms go to II moult	7 to 8	9 to 11
3. From after II moult till worms go to III moult	7 to 8	9 to 11
4. From after III moult till worms go to IV moult	6 to 7	8 to 10
5. From after IV moult till worms ripen	5 to 6	7 to 9

It is to be noted that out of the total quantity of leaves consumed by the worms during the rearing period, the largest quantity, i.e., about 75 per cent. is consumed from after the IV moult till the worms ripen.

Enclosure 5.

Note Regarding Answer to Question No. 14.

In reply to Question No. 11, it is stated that one ounce of Mysore seed gives about 42,000 worms. On page 4 of note appended to the Memorandum it is stated that 140 layings of Mysore race weighing one ounce produce 27,500 cocoons or 50 lbs. of cocoons. One ounce of hybrid seed produces about 70 lbs. of cocoons.

The practice in Mysore is to supply layings to sericulturists. The eggs are not supplied loose and by weight. The sale of eggs loose and by weight is the common practice in France and Italy. Even in Japan, the eggs are mostly supplied by way of layings and not loose, i.e., not by weight.

For the purpose of ascertaining the number of eggs that weigh one ounce, experiments were carried out in the Government Silk Farms in Mysore. It was found out that on an average about 42,000 Mysore silk-worm eggs weigh one ounce. During the course of experiments carried on from 1932 to 1936, it was found that a Mysore female moth lays from 280 to 370 eggs in the course of 24 hours according to season, and the average

for the year was about 300 eggs. The number of eggs laid by a female moth varies according to the care taken in the transport of seed-cocoons, the health and size of the moth, the care taken in handling the moths, the care taken at the time of pairing, separation of male moths and at the time of laying eggs. After separation from the male moth, the female moth lays most of the eggs within about four hours, but she will go on laying a few eggs off and on till next evening.

In reply to Question No. 14, it is stated that "the present wastage in silk-worm rearing may be taken to be about 25 per cent.". This refers to the Mysore race. This loss refers to wastage of worms during the rearing period and does not take into account the worms that waste the silk in trays and that do not spin cocoons or spin flimsy cocoons on chandrikas. The Mysore Race of worms begin to ripen at about 4 A.M. and stop at 9 A.M. The same thing happens on next two days also. The rearer has to be very prompt in picking up ripe worms as otherwise the worms waste the silk on the trays. In spite of all the vigilance, as the ripening takes place in the early hours of the morning and as the ripe worms from a number of trays have to be picked up at almost the same time and as the space is limited in the rear's house to keep the trays on the floor and pick up the worms and as the light at that time is not also good, there would be some delay in picking up all ripe worms and some of them waste the silk on the trays. Some of these worms do not form cocoons on the chandrikas and some form very flimsy cocoons. All these are rejected while harvesting the cocoons. The number of cocoons that are lost due to the above causes at the time of mounting varies with each rearer and the facilities he has. Roughly it may be taken that 800 to 1,000 cocoons are lost this way.

(Page 67 of the Tariff Board Report. Pages 27, 28 and 29 of the Hand Book of Sericulture Rearing of worms by Messrs. N. Rama Rao and M. Yonemura.)

The eggs of the Mysore race do not all hatch on the same day. Usually, about 5 per cent. hatch on the 1st day, 80 per cent. on the next day and 15 per cent. on the last day. The rearers used to starve the first day's hatchlings so that those worms may be brushed on the 2nd day along with that day's hatchlings. The 3rd day's hatchling would be kept separately for rearing. This was causing great inconvenience to the rearer as he would have no respite when the worms went to moult as one lot would go to moult one day while the other lot would go to moult the next day. To avoid this inconvenience, the rearers have been induced to stimulate the eggs by gentle brushing with a feather. As a result, 90 per cent. of the eggs hatch on the same day now. The 10 per cent. hatching the next day are not kept for rearing. As the rearers gain experience, it is expected that almost all the eggs will be made to hatch the same day.

Though one ounce of Mysore seed gives 42,000 worms, only 90 per cent. of these worms are thus used for rearing, i.e., 37,800 worms only are used for rearing. The losses during the rearing period is about 25 per cent., i.e., about 9,450 worms are lost during rearing period out of 37,800 worms used for rearing. Hence, the rearer must get 28,350 cocoons. The losses at the mounting period amount to about 900 worms as already explained above. Hence the rearer gets on an average about 27,500 saleable cocoons per ounce of Mysore seed.

In the case of cross-breeds, as all the cross-breed layings are issued by Government and Aided Grainages, it has been possible to induce the rearers using cross-breed layings to pay great attention to stimulate the eggs well in time. As a result almost all the eggs hatch on the same day and the worms are used for rearing. The cross-breed worms are also strong. They begin to ripen at about 8 A.M. and go on ripening till about 5 P.M. and the next day noon all the worms will be mounted. These worms do not ripen during night time. Hence, it is easy to pick up the ripe worms and mount them. Thus, no worms waste the silk on the trays and the number

of worms that do not form cocoons on chandrikes or that form flimsy cocoons is very limited.

The average yield from one ounce of cross-breed seed is 70 lbs. of cocoons and at 484 cocoons per pound, the number of cocoons produced per ounce of seed is 33,800. As there would be about 7 per cent. (2,370) of double cocoons, the number of worms that would have formed the cocoons would be 36,250 out of 42,000 worms brushed for rearing. Hence, the average percentage of loss in rearing cross-breeds amounts to about 14 per cent. only.

Enclosure 6.

Manufacture of Silk-worm Gut.

The usual way of preparing silk-worm gut is to kill the full grown silk-worm, just when it is ready to form the cocoon, to immerse the worm in vinegar or acetic acid, take out the worm after 24 hours, extract the silk gland and stretch it well. The stretched gland is dried naturally and cleaned and washed with Marseilles Soap and dried again in open air. Then it is ready for sale.

Experiments were tried in Mysore to prepare silk-worm gut out of Pure Mysore and Cross-breed worms. The length of the gut obtained was not enough to satisfy the requirements.

From the literature available it is seen that silk-worm gut is not prepared from domesticated silk-worms. The domesticated silk-worms are reared for the purpose of producing raw silk, as such, the worms are made to produce cocoons and are not killed just before spinning to produce silk-worm guts. Healthy and full grown worms have to be killed for preparing guts as diseased worms or weak worms which do not form cocoons are not suited as they will not have secreted enough of the silky fluid in the silk glands. It would be more advantageous to allow healthy worms to produce cocoons for extracting raw silk, than to kill them to produce short length guts unsuited for the purpose for which they are intended.

Silk-worm guts were formerly prepared in Japan from the silk glands of wild and semidomesticated silk-worms as the silk produced from these worms are not so good and high grade as that produced from cocoons of domesticated worms. The silk glands of these wild and semidomesticated worms contain much more silky fluid than the domesticated worms, as such, longer length guts can be obtained from the wild and semidomesticated worms.

It is understood that now-a-days, silk-worm gut used in surgery is not prepared from silk-worms at all. Raw silk is now used for the purpose of preparing the guts required in surgery. The following information obtained from Japan in July 1937 would be interesting in this connection:-

"As for silk-worm gut used in surgery, they have usually adopted raw silk with particular size from No. 1 to No. 12 according to the case, whereas, recently they use such one as having prepared of sheep guts, as this can be spared the trouble of being taken off after the operated place is healed up and naturally gives no pain to the sufferer."

"It is also learnt that some vegetable matter is used for the same purpose and also that a tiny metal particularly prepared for that purpose serves for the use of binding up the operated place instead of sewing the place, now-a-days."

"Tegusu silk made out of silk gland of *Saturnia Pyretorum*, West (a wild silk-worm) is not used in surgery at present."

Information available indicates that silk-worm gut required in surgery is not prepared out of domesticated worms even in Japan where long length

guts can be obtained from domesticated silk-worms. The Japanese Government have decided to positively encourage the silk gut manufacturing industry as raw silk is used for this purpose.

Attempts were made to manufacture silk gut from twisted Mysore silk a couple of years ago in the Government Silk Weaving Factory, Mysore, and the gut was supplied to the Medical Department but the quality was not found satisfactory. The question is being pursued.

Enclosure 7.

Depreciation of Exchange.

In reply to Question No. 58, it is stated that as compared to 1931 the Yen has depreciated by 45 per cent., the Shanghai Dollar by 55 per cent. as compared to 1932 and the Hongkong Dollar by 30 per cent. as compared to 1934.

The last Tariff Board on page 142 of the Report have taken the following Exchange figures for the year 1932-33:—

	Ra.
Hongkong	89
Shanghai	117
Japan	99

The exchange rates prevailing in August 1933 are noted below (Times of India):—

	Ra.
Hongkong	85
Shanghai	49
Japan	79

On page 163 of the Tariff Board Report the *ex-duty* price of Filature and re-reeled imported silks is noted as Rs. 3-12 per pound at the then prevailing exchange rates. The *ex-duty* price of the same silk will now be as follows at the exchange rates prevailing in August 1938:—

	Per lb.
	Ra. A. P.
Hongkong	3 9 3-6
Shanghai	1 9 1-5
Japan	3 1 1-1

The exchange rates prevailing in December 1934 are noted below:—

	Ra.
Hongkong	120
Shanghai	99
Japan	78

The rates prevailing for Canton Silk in Bombay Market in December 1934 ranged from Rs. 4-2 to Rs. 4-5 per pound, i.e., the *ex-duty* price may be taken at Rs. 4 per lb. after deducting annas 3 for landing charges per lb.

At the exchange rates prevailing in August 1938, the *ex-duty* price of the same silk will be as follows:—

	Per lb.
	Ra. A. P.
Hongkong	2 13 4
Shanghai	1 15 9
Japan	4 0 9-8

The exchange rates in August 1929 were as follows:—

	Rs.
Hongkong	135
Shanghai	162
Japan	130

In August 1938, they are as follows:—

	Rs.
Hongkong	85
Shanghai	49
Japan	79

The percentage of fall between August 1929 and August 1938, is noted below:—

	Per cent.
Hongkong	37
Shanghai	69·8
Japan	39

(19) *Letter from the Director of Industries and Commerce in Mysore, Bangalore, No. C. I. 412/37—38, dated the 10th September, 1938.*

I have the honour to forward herewith copies of letter No. E. 1455/JM, dated the 20th August, 1938, together with copies of enclosures and of No. E. 1455/JM, dated the 30th August, 1938, received from the Trade Commissioner for Mysore in London.

Letter No. E. 1455/JM, dated the 20th August, 1938, from the Trade Commissioner-in-charge for Mysore in London, to the Director of Industries and Commerce in Mysore, Bangalore.

PARTICULARS REGARDING SILK INDUSTRY.

Upon receipt of your No. C. 1—412/37—38, dated the 4th August, I approached the Secretary of the Silk Association of Great Britain and Ireland, who afforded me an interview immediately.

I now attach particulars received from that source, which I hope will be found constructive and useful.

I shall be pleased to go further with the matter if necessary.

Letter from the Secretary, the Silk Association of Great Britain and Ireland, London, to the Trade Commissioner-in-charge for Mysore in London, No. A. 28—223, dated the 19th/20th August, 1938.

I thank you for your letter of the 18th instant, reference JM/E. 1455, and as requested have pleasure in enclosing herewith statistics indicating the imports for the last five years of—

- (1) Raw Silk.
- (2) Silk cocoons and waste of all kinds.
- (3) Silk yarns and manufactures.

Wherever available the figures for imports from British India are shown.

With regard to the point raised under (c) in your communication, practically no Indian silk has been imported into the United Kingdom for some little time owing to the fact that it is not nearly so well reeled as Japanese silk, and that at the price asked for it it cannot compete with the much superior commodity from Japan. As no doubt you are aware,

in India the local silk is sold at approximately 3s. 6d. per lb. higher than other silks on account of the protective customs duty in operation there.

U. K. Raw silk Imports.

	1933.	1934.	1935.	1936.	1937.
From British Countries.	lbs. 19,922	34,618	22	665	..
	£ value 10,275	13,248	8	256	..
Italy	lbs. 181,310	223,562	161,578	38,773	111,372
	£ value 80,067	72,033	50,058	13,901	53,116
China	lbs. 281,951	247,433	285,414	417,089	533,764
	£ value 122,512	86,088	97,044	161,616	219,587
Japan	lbs. 2,223,818	3,013,128	3,549,588	3,653,609	4,056,691
	£ value 919,353	947,079	1,182,070	1,391,338	1,657,044
Other foreign countries.	lbs. 113,034	114,578	137,707	176,194	192,349
	£ value 46,028	36,800	56,031	68,599	78,550
Totals	lbs. 2,820,035	3,633,319	4,133,809	4,286,330	4,894,166
	£ value 1,178,235	1,153,254	1,385,311	1,635,710	2,026,297

Silk Cocoons and Waste of all kinds.

From British Countries.	lbs. 104,979	113,391	153,521	146,022	94,208
	£ value 6,829	7,020	8,085	8,646	6,027
Italy	lbs. 583,912	634,000	120,731	..	43,851
	£ value 47,422	48,652	8,664	..	8,687
China	lbs. 1,420,659	2,307,992	1,308,583	1,524,486	1,547,007
	£ value 52,316	70,488	49,819	87,029	109,485
Other foreign countries.	lbs. 618,482	916,060	639,569	866,435	935,069
	£ value 53,549	59,998	57,862	93,259	113,306
Totals	lbs. 2,728,032	3,971,443	2,222,404	2,537,843	2,620,135
	£ value 160,116	186,158	124,430	188,934	237,506

Under the heading "Other British Countries" imports of Silk/Cocoons and Waste of all kinds received from British India were:—

lbs.	99,516	58,628	140,966	135,160	(sub-divid- ed figures not yet available.)
£ value	6,415	3,449	7,819	7,906	

Total Import of Silk yarns and manufactures : Value only.

From	1933.	1934.	1935.	1936.	1937.
	£	£	£	£	£
British Countries	31,502	48,051	28,530	27,470	49,008
Germany	185,010	207,861	229,079	302,190	285,354
France	1,349,220	1,151,842	1,163,121	997,302	904,177
Switzerland	483,800	444,137	318,575	273,102	281,534
Italy	309,452	238,872	199,248	48,141	151,998
China	70,698	62,685	105,323	126,878	96,291
Japan	563,324	791,597	893,217	682,620	703,144
Other foreign countries	136,108	127,051	90,426	104,695	128,702
Total	3,125,112	3,072,096	3,027,519	2,562,396	2,604,208

Any imports from India would be classified under the heading "Total from British Countries". Owing to their smallness they are not shown separately in any of the Customs statistics which are issued.

Copy of letter No. E. 1455/JM, dated the 30th August, 1938, from the Trade Commissioner-in-charge for Mysore in London, to the Director of Industries and Commerce, Mysore.

PARTICULARS REGARDING SILK INDUSTRY.

Yours No. C. 1—412/37—38, dated the 4th August, also yours D. 4—38—39, dated the 13th August.

Further to my letter of the 20th instant, I now have pleasure in giving you the following further current information, which I trust will prove useful—this statement shows the Customs Duty payable on silk cocoons and waste of all kinds, raw silk and silk yarns entering the United Kingdom:—

IMPORT DUTIES.*Silk.*

	Per lb.	
	s. d.	
Cocoons and wastes of all kinds—		
Undischarged	0 6	
Wholly or in part discharged, other than noils	1 6	
Noils	0 6	
Raw—		
Undischarged	1 6	
Wholly or in part discharged	2 2	
Yarn—		
Undischarged	2 2	} plus 25 per cent. of the full value of the article.
Wholly or in part discharged not being noil yarn	2 9	
Noil yarn	0 9	

(20) *Letter from the Director of Industries and Commerce in Mysore, Bangalore, No. C. 1-412, dated the 10th September, 1938.*

I have the honour to forward herewith the undermentioned notes (five copies of each) as desired by the President, Indian Tariff Board.

Kindly acknowledge receipt.

Enclosures :—

- (1) Up-to-date information to be added to the Memorandum and Replies to General Questionnaire sent by the Government of Mysore.
- (2) Octroi Duty levied on foreign silk and yarn by the Bangalore City Municipality.
- (3) Statement showing the approximate yield of mulberry leaves from one acre of bush mulberry garden and the quantity of leaves plucked by a female cooly per day.
- (4) Cost of seedlings required to raise one acre of bush mulberry.
- (5) Statement indicating the results of tests of raw silk (Indian and Foreign) conducted in September, 1938 (page 88 of last Tariff Board Report).

Enclosure I.

Information to be added on to the Memorandum and Replies to the General Questionnaire sent by the Mysore Government to the Indian Tariff Board, to bring the figures up-to-date.

MEMORANDUM.

ANNEXURE A.—Average Declared Value of Imported Raw Silk and Silk Piece-goods.

	May 1938.	June 1938.	July 1938.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
1. Raw Silk . . .	3 1 9	2 10 4	2 12 1
2. Silk Piece-goods . . .	0 5 8	0 5 9	0 5 11

ANNEXURE A1.—Statement showing the Exchange Rates.

	Hongkong.	Shanghai.
July, 1938	85	52
August, 1938	85	49

ANNEXURE B.—Rates of Canton and Japan Silk of 20/22 Denier, per pound (Bombay Rates).

	Canton.	Japan.	
		White.	Yellow.
	Rs. A. P.	Rs. A.	Rs. A.
Fortnight ending—			
30th June, 1938 . . .	4 2 0	5 5	5 2
15th July, 1938 . . .	4 4 0	5 7	5 4
31st July, 1938 . . .	4 2 6	5 9	5 6
15th August, 1938 . . .	4 5 0	5 12	5 10
31st August, 1938 . . .	4 4 0	5 14	5 12

ANNEXURE C.—Rates of Charka Silk per pound.

Fortnight ending.	Kempasahalli.		Closepet, Channapatna, etc.		Siddaghatta, Chickballapur, etc.		Agrahar and Kollegal, etc.	
	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
30th June 1938	4 5 0	4 8 0	3 5 0	3 12 0	3 7 0	5 1 0	3 0 0	4 9 7
15th July "	4 5 0	4 8 0	3 5 0	3 12 0	3 6 0	4 11 0	3 0 0	4 9 7
31st July "	4 2 0	4 5 0	3 5 0	3 11 0	3 5 0	4 10 0	2 13 0	4 9 7
15th Aug. "	4 2 0	4 5 0	3 5 0	3 12 0	3 5 0	4 10 0	3 0 0	4 9 7
31st Aug. "	4 4 0	4 7 0	3 5 0	3 12 0	3 5 0	4 10 0	3 0 0	4 9 7

ANNEXURE D.—Rate of Reeling Cocoon per pound.

Fortnight ending.	Channarayana.				Sidlaghatta.				Mugur.			
	Cross-breed.		Mysore.		Cross-breed.		Mysore.		Cross-breed.		Mysore.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
	A. P.	A. P.	A. P.	A. P.	A. P.	A. P.	A. P.	A. P.	A. P.	A. P.	A. P.	A. P.
30th June 1938 . . .	4 4	4 2	4 2	4 0	5 0	4 9	4 0	4 6	4 6	4 2	4 2	4 0
15th July " . . .	4 0	3 10	3 10	3 8	5 0	4 6	4 0	4 6	4 6	4 2	4 2	4 0
31st July " . . .	4 0	3 10	3 10	3 8	4 3	4 0	3 9	4 0	4 6	4 2	4 2	4 0
15th August 1938 . . .	4 0	3 10	3 10	3 8	..	..	..	..	4 6	4 4	4 2	4 0
31st August " . . .	4 0	3 10	3 10	3 8	4 4	4 3	4 0	4 3	4 6	4 4	4 2	4 0

NOTE APPENDED TO THE MEMORANDUM.

(Statement 2.)

ANNEXURE I.—Export of Raw Silk and Silk Waste from the State during 1937-38.

Full Year (April to end of March).

Year.	Export of Raw Silk.		Export of silk waste.	
	Quantity in lbs.	Value in lakhs of Rs.	Quantity in lbs.	Value in lakhs of Rs.
1937-38	475,447	22.93	171,237	0.570

ANNEXURE II.—Raw Silk and Twisted Silk Imported into the State during 1937-38.

Full Year (April to end of March).

Year.	Raw silk.		Twisted silk.	
	Quantity in lbs.	Value in Rs.	Quantity in lbs.	Value in Rs.
1937-38	501,038	24,16,469	51,753	2,91,139

ANNEXURE III.—Artificial Silk and Artificial Silk Twist Imported into the State during 1937-38.

Full Year (April to end of March).

Year.	Artificial silk.		Artificial silk twist.	
	Quantity in lbs.	Value in Rs.	Quantity in lbs.	Value in Rs.
1937-38	31,680	23,760	802,519	7,00,799

Information to be added on to Answers to Questions Nos. 29 and 32 of the Replies sent by the Mysore Government to the General Questionnaire issued by the Indian Tariff Board, to bring the information up-to-date.

Answers to Question No. 29.

(a) The total expenditure on reeling for 1937-38:—

Year.	Total works expenditure.
1937-38	Rs. 73,815-5-8

(b) The cost of producing one pound of raw silk in the Government Silk Filature, Mysore, during 1937-38:—

Heads.	Amount.	
	Rs.	A. P.
1. Cost of reeling cocoons	5	6 7
2. Cost of labour	0 14	6 75
3. Cost of power, light and fuel	0 9	4 80
4. Cost of water and soap	0 0	9 60
5. Cost of supervision and management—		
(a)	0 2	4
(b)	0 3	0
[Figures under (b) relate to the pay of the Senior Sericultural Inspector for the full year and the pay of the Mechanic and Reeling Demonstrator till the middle of September, 1937 only.]		
6. Cost of repairs and maintenance	0 1	10
7. Selling expenses . . . . .	...
8. Other expenses	0 3	5 75
9. Depreciation charges	0 4	0 10
Total excluding (b)—5	7 11	0
Deduct—Cost of waste	0 6	8
Net cost of silk	7 4	4
Net cost including (b)—5	7 7	4

Answer to Question No. 32.

The maximum capacity of the Mysore Government Filature and the actual output of silk and silk waste.

Instead of figures given for 10 months during 1937-38, insert the figures given below for the full year 1937-38:—

Year.	No. of Basins.	Maximum capacity.		Actual Out-put.	
		Silk.	Waste.	Silk.	Waste.
		Lbs.	Lbs.	Lbs.	Lbs.
1937-38	34	12,760	8,320	9,537	5,444

Enclosure II.

Octroi Duty levied by the City Municipality on Foreign Silk Yarn, etc., imported into Bangalore City.

Kind of yarn (foreign).	Duty levied.	
	Rs.	A.
1. Raw Silk	2	0
2. Artificial Silk	1	9
3. Foreign Yarn	1	9

14 A

Enclosure III.

(a) *Statement showing the approximate yield of mulberry leaves in different crops during a year from one acre of Mulberry Garden.*

Number of crop.	Rain-fed.	Tank irrigated.	Shallow well irrigated.	Deep well irrigated.
	Lbs.	Lbs.	Lbs.	Lbs.
1st Crop .	1,600	2,400	2,500	2,500
2nd Crop .	1,200	1,700	2,000	2,300
3rd Crop .	880	1,300	1,700	1,900
4th Crop .	720	1,000	1,500	1,700
5th Crop .	600	800	1,200	1,600
6th Crop .	...	800	1,100	...
Total .	5,000	8,000	10,000	10,000

N.B.—1. The average yield of 5,000 lbs. in Mysore area rainfed gardens is obtained provided the rainfall is timely and normal.

2. In deep well irrigated gardens, the plants are generally pruned to the ground at each harvest and generally five crops are obtained.

(b) *Statement indicating roughly the quantity of leaves plucked by a female cooly in a day.*

	1st crop.	2nd crop.	3rd crop.	4th crop.	5th crop.	6th crop.
	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
1. Dry Gardens .	50	40	30	30	30	...
2. Irrigated Gardens .	60	45	35	35	35	30

Enclosure IV.

Note regarding the Cost of Seedlings required to raise one acre of Bush Mulberry.

Mulberry yields fruits twice a year, i.e., February and March, and July and August. The ripe fruits from well grown mulberry trees have to be collected and seed prepared from the same. The seed has to be dried in the shade and preserved for a few months before sowing.

A seed bed has to be prepared and the mulberry seed sown in the seed bed. As the plants grow up, the seedlings have to be thinned out, the weak ones removed and cultural operations attended to. When the seedlings are nine to twelve months old, they can be used for planting bushes. The cost of raising about 12,000 seedlings (one year old) amounts to about Rs. 20 as per the information available in Government Mulberry Gardens. These seedlings are enough to plant about 2 acres of rainfed gardens and $1\frac{1}{2}$ acres of irrigated gardens. Hence the cost of seedlings enough to plant one acre of rainfed garden would be Rs. 10 and in the case of irrigated gardens about Rs. 13.

As it takes a long time to raise seedlings and as the quantity available for distribution would be limited, experiments were conducted to see if the cuttings from the seedlings would be more advantageous than the ordinary cuttings available for raising bush mulberry. Seedlings were planted in Government gardens and the cuttings obtained from these at the time of pruning were planted separately. It was found that the bushes raised from cuttings of seedlings gave a better quality and quantity of leaves than the bushes raised from ordinary cuttings. Bush mulberry has been raised from seedlings in Government Mulberry Gardens and the cuttings obtained from these when the bushes are pruned annually are being supplied free of cost to sericulturists for planting purposes, subject to the condition that $1\frac{1}{2}$ times the quantity of cuttings supplied is given back to the Department when the garden is pruned in the year following the first planting. As the seedling bushes in Government Mulberry Gardens are not raised merely for the sake of supplying cuttings and as the leaves from these bushes are used for rearing purposes, the cost of these cuttings from seedlings will be almost the same as that of the ordinary cuttings. The market rate for mulberry cuttings is governed by the law of demand and supply.



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Enclosure V.

Comparative Silk Tests done in Mysore Silk Filatures, Ltd.,

Kind of Silk.	Name of Filature and place.	Deniers.	Rate per lb.	Winding for half an hour, No. of breaks.	Uniformity or denier.	Average deniers.
			Rs. a. p.			
Foreign Silk.	1. China (Canton Filature silk).	28/32	4 4 0	3	43, 36, 34, 44	39.25
	2. Ditto .	20/22	4 6 0	3	22, 20, 26, 25	23.25
	3. Japan (Filature white).	20/22	5 12 0	7	22.5, 22, 22.75, 22.5.	22.40
	4. Ditto .	13/15	6 0 0	Nil	18, 17, 22, 17	18.5
	5. Japan (Yellow)	20/22	5 10 0	Nil	23.5, 22.5, 26, 25.	24.25
Indian Silk.	6. Kashmir (Yellow).	28/32	5 10 0	1	40, 30, 29, 34.75.	33.4
	7. Ditto .	24/28	5 10 0	Nil	28.25, 27.75, 29, 26.75.	27.9
	8. Mysore Silk Filature, Ltd.	16/18	..	3	18, 20, 19, 20	19.25
	9. Ditto .	28/30	..	3	30, 31, 29, 32.5	30.6
	10. Kollegal, III quality, given by Mr. Achayya.	..	..	6	81, 54, 27, 60	55.5
	11. Kollegal foot-reced silk given by Mr. Achayya.	..	..	1	33, 35, 38, 39	36.25
	12. First quality (Singanallur) handed by Mr. Achayya.	..	..	6	17.75, 15, 16, 13.	15.4
	13. Charka Silk (Chickballapur).	..	..	(Hank too big, not possible for winding tests.)	20, 15.75, 18	17.9

N.B.—Prices given for silks from No. 1 to

Mysore, based on International Standards, September 1938.

Nerve.	Elasticity, per-centage of elongation before breaking.	Tenacity, No. of grammes of weight supported.	Lustre.	Cleanliness.
Fair .	15, 14.2, 17.8, 16.4 Average 15.8	124, 105, 134, 151 Average 128.6	Poor .	Not completely free from floss.
Fair .	13, 14, 17, 14 Average 14.5	58, 58, 64, 67 Average 61.75	Fair .	Ditto.
Fair .	20.2, 10.8, 13, 17.8 Average 15.4	57, 48, 54, 61 Average 55.0	Dull .	As far as possible free from floss.
Fair .	14.8, 9.6, 15, 7.8 Average 11.8	74, 85, 70, 64 Average 68.25	Fair .	Ditto.
Good .	16.6, 20, 15, 16.8 Average 17.1	74, 76, 71, 65 Average 71.5	Dull .	Ditto.
Good .	14, 20.8, 14.6, 17.8 Average 16.8	129, 134, 104, 111 Average 119.5	Dull .	Not completely free from floss.
Good .	7, 20, 15.2, 8 Average 12.5	70, 60, 71, 95 Average 74	Dull .	Good.
Very good.	17.4, 18, 16.4, 19.2 Average 17.7	60, 72, 80, 60 Average 68	Very good.	99 per cent. clean silk. Certain percentage of floss could be seen here and there.
Very good.	21.8, 19, 18.6, 16 Average 18.6	134, 107, 130, 128 Average 124.7	Very good.	Ditto.
Poor .	Too coarse for serimeter tests.		Dirty .	Very bad.
Fair .	13, 10.2, 7 Average 10.1	44, 57, 44 Average 48.3	Good .	Good. Contains less floss.
Fair .	13, 13, 17.8, 8.5 Average 13.07	55, 55, 45, 41 Average 49	Good .	Ditto.
Fair .	12, 9.8, 12 Average 11.2	80, 51, 57 Average 62.6	Good .	Ditto.

No. 7 are Bombay prices per pound.

(21) *Letter from the Director of Industries and Commerce in Mysore, Bangalore, No. A. 1-279, dated the 11th November, 1938.*

I have the honour to send herewith the following information for the use of the Indian Tariff Board:—

- (1) Note on Research work to be done in Sericulture.
- (2) Prices of Canton and Japanese Silks to end of October, 1938.
- (3) Prices of reeling cocoons in Mysore to end of October, 1938.
- (4) Prices of Mysore Charka Silk to end of October, 1938.
- (5) Area under Mulberry in 1937-38 (Table 21 of last Tariff Board Report).
- (6) Cost of production of disease-free seed in Government grainages during 1937-38 (Table 29 of last Tariff Board Report).
- (7) Cost of production of disease-free seed in aided grainages during 1937-38 (Table 30 of last Tariff Board Report).

Enclosure 1.

Sericulture Research Work.

1. Mulberry Cultivation—

- (a) Analysis of different kinds of soils on which mulberry is grown and analysis of leaves produced.
- (b) Collection of varieties of mulberry—both Indian and Foreign—and studying the best methods of propagation, leaf yield, suitability to local conditions, etc., to select better varieties suited to different parts of India.
- (c) Improvement of mulberry by selection by raising seedlings.
- (d) Improvement of mulberry by hybridising.
- (e) Improvement of mulberry by grafting—shoot grafts, root grafts, etc.
- (f) Manurial experiments.
- (g) Spacing experiments.
- (h) Different systems of training—bush, dwarf, tree, etc.
- (i) Different systems of planting.
- (j) Diseases of mulberry—fungus disease and other diseases; enemies, such as caterpillars, etc.
- (k) Development of root system in mulberry—cuttings, seedlings and saplings.
- (l) Water requirements of mulberry.
- (m) Methods of pruning and cultivation.
- (n) Methods of preserving and transporting mulberry leaves.
- (o) Classification of local mulberry.

2. Grainage Work—

- (a) Methods of transport of seed cocoons.
- (b) Methods of packing and transport of eggs.
- (c) Effect of soils, irrigation, manures, on the quality of seed cocoons and the health of resulting worms.
- (d) Effect of nutrition on sex of moths emerging from seed cocoons.
- (e) Separation of cocoons according to sex before emergence of moths.
- (f) Refrigeration of eggs to delay hatching.
- (g) Refrigeration of seed cocoons to delay emergence of moths.
- (h) Refrigeration of male moths and female moths.

- (i) Hibernation of univoltine and bivoltine eggs.
- (j) Temperature and humidity conditions and hatching of eggs.
- (k) Moth crushing machines.
- (l) Different kinds of paper for egg sheets.
- (m) Virility of male moths for cross-breeding purposes.
- (n) Number of eggs laid by a female moth in different seasons of the year and the percentage of hatchings.
- (o) Artificial hatching and hibernating eggs.

3. *Silk-worm Rearing—*

- (a) Foreign races of worms suited to different localities and different seasons of the year.
- (b) Hybrids suited to local conditions.
- (c) Improvement of local races by selection.
- (d) The effect of mulberry leaves of different soils, etc., on the health of the worms and quality and quantity of silk produced.
- (e) Spacing experiments to determine space required for worms of different races, hybrids, etc., in different seasons of the year.
- (f) Feeding experiments with chopped leaves, shoots and branches.
- (g) Methods to make all the eggs hatch at the same time.
- (h) Effect of different manures on the health of worms and quantity and quality of silk.
- (i) Quantity of leaf fed, consumed by worms and wasted by worms.
- (j) Analysis of worms and litter.
- (k) Temperature and humidity conditions in rearing rooms and the health of worms.
- (l) Feeding experiments with leaves of mulberry, trained in different methods and of different methods of cultivation.
- (m) Methods of cleaning silk-worm beds.
- (n) Determining optimum amount of moisture in mulberry leaves in different seasons of the year.
- (o) Feeding experiments with foreign varieties of mulberry and with grafted varieties of mulberry.
- (p) Space required in cocoönages for different races of worms in different seasons of the year.
- (q) Methods of reducing the percentage of double cocoons in cross-breeds.
- (r) Different methods of cocoönages.
- (s) Best period of harvesting cocoons.
- (t) Wastage in rearing.

4. *Silk-worm Diseases—*

- (a) Pebrine, Flacherie, Grasserie, Muscardine, Ply Pest.
- (b) Disinfectants.

5. *Production of Raw Silk—*

- (a) Methods of collection and transport of cocoons.
- (b) Loss of weight in cocoons in different seasons.
- (c) Methods of conditioning cocoons.
- (d) Methods of preservation of cocoons.
- (e) Methods of cooking cocoons.
- (f) Advantages and disadvantages of "button system" and "jetto-bout" system of reeling.
- (g) Number of reeling ends in basins suited to local cocoons and workers.

- (h) Use of chemicals in cooking and reeling cocoons.
- (i) Methods of packing, preserving and transport of raw silk.
- (j) Methods to improve raw silk produced in indigenous charkas.
- (k) Methods of improving silk waste.

6. General—

- (a) Establishment of silk conditioning houses.
- (b) Establishment of Experimental Stations in different parts of India with expert staff and full equipment to carry on all items of experimental work connected with silk industry.
- (c) Establishment of fully equipped sericultural schools for training expert staff, research workers and Departmental staff.
- (d) Study of the utilisation of bye-products:—Silk worm litter, Mulberry Twigs, flimsy and poor cocoons, double cocoons, silk-waste, pierced cocoons and pupae.
- (e) Collection and dissemination of information relating to the industry—both Indian and Foreign.
- (f) Establishment of cocoons markets.
- (g) Establishment of agencies in consuming centres for popularising Indian raw silk.
- (h) Establishment of agencies for collection of statistics regarding silk industry in various parts of India.
- (i) Constitution of an All-Indian Sericulture Congress on the lines of the Indian Science Congress.
- (j) Publication of a Sericultural Journal.
- (k) Provision of facilities to sericultural workers and sericulturists to study the silk industry in other countries.

Enclosure 2.

Information to be added on to the Memorandum and Replies to the General Questionnaire sent by the Mysore Government to the Indian Tariff Board, to bring the figures up-to-date.

MEMORANDUM.

ANNEXURE B.—Rates of Canton and Japan Silk of 20/22 Denier, per pound (Bombay Rates).

For the fortnight ending.	Canton.		Japan.	
	Rs. A. P.		White.	Yellow.
	Rs.	A. P.	Rs. A. P.	Rs. A.
30th June, 1938 . . .	4	2 0	5 5 0	5 2
15th July, 1938 . . .	4	4 0	5 7 0	5 4
31st July, 1938 . . .	4	2 6	5 9 0	5 6
15th August, 1938 . . .	4	5 0	5 12 0	5 10
31st August, 1938 . . .	4	4 0	5 14 0	5 12
15th September, 1938 . . .	4	5 3	6 1 6	5 15
30th September 1938 . . .	4	5 9	6 1 0	5 15
15th October, 1938 . . .	4	5 0	6 2 0	5 14
31st October, 1938 . . .	4	8 0	6 4 0	6 0

Enclosure 3.

Information to be added on to the Memorandum and Replies to the General Questionnaire sent by the Mysore Government to the Indian Tariff Board, to bring the figures up-to-date.

MEMORANDUM.

ANNEXURE D.—Rate of Reeling Cocoon per pound.

Fortnight ending.	Channarayana.				Sidlaghatta.				Mysore.			
	Cross-breed.		Mysore.		Cross-breed.		Mysore.		Cross-breed.		Mysore.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
30th June 1938	A. P.	A. P.	A. P.	A. P.	A. P.	A. P.	A. P.	A. P.	A. P.	A. P.	A. P.	A. P.
15th July 1938	4 4	4 2	4 2	4 0	5 0	4 9	4 9	4 6	4 6	4 2	4 2	4 0
31st July 1938	4 0	3 10	3 10	3 8	5 0	4 6	4 6	4 0	4 6	4 2	4 2	4 0
15th August 1938	4 0	3 10	3 10	3 8	4 3	4 0	4 0	3 9	4 6	4 2	4 2	4 0
31st August 1938	4 0	3 10	3 10	3 8	4 6	4 0	3 9	3 6	4 6	4 4	4 2	4 0
15th September 1938	4 0	3 6	3 8	3 0	4 4	4 3	4 3	4 0	4 6	4 4	4 2	4 0
30th September 1938	4 0	3 6	3 8	3 2	5 0	4 0	4 3	3 9	4 4	4 2	4 0	3 10
15th October 1938	3 10	2 10	3 6	2 8	4 6	4 0	4 0	3 8	4 6	4 0	3 9	3 6
31st October 1938	3 10	3 0	3 6	2 10	4 3	3 6	3 9	3 6	3 6	3 4	3 2	3 0

Enclosure 4.

ANNEXURE 'C' OF THE MEMORANDUM.

Rates of Charke Silk per lb., from the fortnight ending with 30th June 1938 to the fortnight ending with 31st October 1938.

Fortnight to which the information relates.	Kempnaballi.		Closepet, Channapatna, Manchanabele and Muduvadi.		Sidlaghatta, Chickballapur, Kyalanur, Chinnasandra and Venkatagirikote.		Agrahar and Kollegal.	
	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
30th June 1938	4 5 0	4 8 0	3 6 0	3 12 0	3 7 0	5 1 0	3 0 0	4 9 7
15th July "	4 5 0	4 8 0	3 5 0	3 12 0	3 6 0	4 11 0	3 0 0	4 9 7
31st July "	4 2 0	4 5 0	3 5 0	3 11 0	3 5 0	4 10 0	2 15 0	4 9 7
15th August "	4 2 0	4 5 0	3 5 0	3 12 0	3 5 0	4 10 0	3 0 0	4 9 7
31st " "	4 4 0	4 7 0	3 5 0	3 12 0	3 5 0	4 10 0	3 0 0	4 9 7
15th Sept. "	4 4 0	4 7 0	3 5 0	3 12 0	3 5 0	4 10 0	2 15 0	4 9 7
30th " "	3 15 0	4 2 0	3 3 0	3 10 0	3 5 0	4 10 0	2 12 10	4 6 5
15th Oct. "	..	..	3 0 0	3 9 0	2 13 0	4 5 0	2 9 7	4 3 2
31st " "	..	..	2 13 0	3 9 0	2 13 0	4 8 0	2 6 5	4 3 2

Enclosure 5.

TABLE XXI.

Statement showing the area under Mulberry.

Year.	Dry.	Per-centage.	Tank irrigated.	Per-centage.	Deep well irrigated.	Per-centage.	Shallow well irrigated.	Per-centage.
1937-38 .	18,200 acres.	69%	3,000 acres.	11%	2,600 acres.	10%	2,700 acres.	10%

Total Area—28,500 acres.

Enclosure 6.

TABLE XXIX.

Government Grainages. Cost of production of disease-free layings.

Year.	Cost of production per ounce of D. F. seed.	Sale price per ounce of Mysore layings.	Sale price per ounce of cross-breed layings.
	(Cross-breed and Pure Mysore.)		
	Rs. A. P.	Rs. A. P.	Rs. A. P.
1937-38	2 2 0	0 11 2	1 6 5

Enclosure 7.

TABLE XXX.

Aided Grainages. Cost of production of disease-free layings.

Year.	Cost of production per ounce of disease-free layings.	Sale price per ounce of Mysore layings.	Sale price per ounce of cross-breed layings.
	(Cross-breed and Pure Mysore.)		
	Rs. A. P.	Rs. A. P.	Rs. A. P.
1937-38	1 9 0	0 11 2	1 6 5

- (22) *Demi-official letter from M. S. Ram Chandra Rao, Esq., B.A., Director of Industries and Commerce, Bangalore, to N. N. Anklesaria, Esq., C.I.E., Bar-at-Law, Member, Indian Tariff Board, Calcutta, dated the 11th November, 1938.*

I am awfully sorry I could not send you the promised note on the comparative merits of Bounties and Protective Duties all these days as I have been very busy with some urgent matters here. I have now prepared a note which I enclose for your kind perusal. I am afraid that this note will come to you as an unpleasant surprise because having thought deeply over the matter, I have not been able to change over from my conviction that bounties will not satisfy the Indian Industrial conditions as they are to-day and unless they are assisted by adequate protective tariffs their position will continue to be vulnerable. With this fear in my mind I am sending the note to you for what it is worth.

As you know I have been called by your President to meet the Board on the 16th instant. I am leaving here on the 13th morning and will arrive in Calcutta on the 15th and shall take the earliest opportunity after my arrival to call on you.

I am bringing Mr. H. S. Govinda Rao with me. Mr. K. Shamsuddin Khan should have also accompanied us but he will unavoidably have to stay away here because his presence is urgently needed in connection with the work of the Spun Silk Factory.

Enclosure.

Note on the comparative merits of a system of Bounties and Protective Duties for the Sericultural Industry.

It is sometimes held that assistance to an indigenous industry to combat foreign competition is likely to be more effective and accomplished with greater ease by the grant of bounties than by a protective tariff.

A high protective duty it is said, has several disadvantages, such as a heavy rise in price to the disadvantage of the consumer. Protective duties are said to encourage smuggling and thereby neutralise the effects of such duties on local production. Protective duties are also said to afford no direct stimulus to production. A system of tariffs is condemned as a rigid and inelastic one which will admit of no spontaneous and needful variations to suit changed conditions. A system of bounties, on the other hand, renders it possible to assess the extent of assistance required every year and for the legislature to scrutinise the requirements of the industry so as to keep the burden on the exchequer as low as possible.

The levy of protective duties, it is true, involves a sacrifice; so also the grant of a bounty involves a sacrifice. But the former has this merit in that a part of the burden, at least, is shifted on to the shoulders of the competing country, whereas in the latter case, the burden in its entirety must be borne by the nation. The alleged drawback of a protective duty, viz., that it encourages smuggling is less of a practical difficulty and is purely an administrative problem. The customs machinery for detection of fraud, etc., is becoming more and more efficient, so that it is quite possible to control and confine smuggling within very narrow limits.

The argument that protective duties will not act as a direct stimulus to production is easily answered. Several important industries of India, such as, Sugar, Cotton and Steel have risen and thrived behind tariff walls. There is no reason why silk should not flourish just as well behind a tariff wall. Bounties, moreover, have this defect in that though the stimulus to production is there, the improvement is only quantitative and improvement of quality is not directly encouraged. But a protective duty does both.

Taussig in his "Some Aspects of the Tariff Questions" says "in France as is well known, bounties have been given since 1892 on raw silk; a compromise in the demands of the producers in the South for protection, and those of the manufacturers for cheap material. Because of the method by which it was allotted the bounty seems to have stood in the way of technical advance in the industry. At all events the output of raw silk has barely held its own".

The rigidity and inelasticity complained of in a system of protective duties is equally present in a system of bounties. This difficulty, however, is not at all an insurmountable one as is evidenced by the recent tariff history of India. The Government may take power to change the tariff schedules in response to the varying needs of the hour and also provide for unforeseen developments, e.g., Safeguarding of Industries Act.

Operating bounties on an annual basis, affording thus opportunities for periodical scrutiny is a highly doubtful affair. Both the systems, viz., Bounties and Protective Duties cannot in their very nature become effective during the short period of one year. The period of operation should be fairly long if the results desired are to be brought about. The instance of France is a case in point, where the bounty on silk was given in 1909 for a twenty year period. Either protection or subsidisation—if its forces are to come into full play and the desired effects brought about—has to be applied continually over a sufficiently long period to an industry. Only this long and continued assistance can give an industry the necessary strength to compete on equal terms with the foreigner. Thus bounties cannot any more than tariffs develop an industry within a short period. Moreover, under the bounty system since the subsidy has to be annually voted, the hazard to an industry is not a little, as it is then liable to be at the mercy of an unsympathetic legislature, unable to comprehend the genuine needs of the industry, or one which is actuated purely by party motives. The assurance of consistent and continuous assistance would thus be a highly doubtful affair, fraught as it would be with a great deal of uncertainty.

Apart from the fact that bounties have no great claim to superiority over the protective duties, they have several disadvantages of their own. A bounty is essentially in the nature of a stimulant to exports and to meet the effects of foreign competition in the open market. The point of importance here is that this condition is not applicable to the Indian Silk Industry which has as yet not been able to meet the home demand.

In the case of bounties it is difficult to assure assistance over a sufficiently long period. Thus there will be a hindrance to the necessary investments and improvements being effected in the industry. There is little likelihood of a legislature approving of a system of bounties for a sufficiently long period and bounties distributed over two or three years will hardly serve their purpose. An idea of the period of assistance necessary can be had on a reference to bounties in France which were given for a period of 37 years. (Rawley: "Economics of the Silk Industry", pages 157, *et seq.*)

The question of the allocation of the burden of assistance is a complicated affair. Whether the Central or Provincial Government or the States should bear the burden and in what proportion is a difficult question to determine. To the Central Legislature the fact that the bulk of the silk industry is located in Indian States may not have any great interest or appeal, and yet the Indian States have a real claim on its attention in so far as they contribute a large part of the customs revenue of the Government of India. The subsidy should thus rightly come from the Central Government, but whether the legislature will grant a subsidy, which amounts to a deduction from the Central Revenue is a doubtful matter. This being the case, it will, it can be hoped be better disposed towards a system of protecting the industry by tariffs.

Measures of improvements such as research work, etc., would be an additional charge on the Government in the case of bounties whereas it is usual and just that such a burden should be shifted on to the competing countries by means of protective duties.

With regard to the Silk Industry, a system of bounties presents additional administrative difficulties. Silk Industry in India is a cottage industry and scattered over a wide area. The holdings are small and numerous and the industry does not lend itself to concentration or organisation on any large scale. Whereas in France with Univoltine worms all the cocoons are produced once every year, the production of cocoons in India, with the multivoltine worms, is carried on throughout the year. This involves the employment of extensive staff on a permanent basis and at a prohibitive cost consisting mostly of the lowly paid, which therefore is easily susceptible to corruption. The illiteracy of the sericulturists, his inability to maintain accounts adds to the difficulty both in the case of the cocoon rearer and the reeler. In the absence of organised filature establishments in the country there is no reliable method of distributing the subsidy. On purely administrative grounds, therefore, the disbursement of subsidies will prove a very difficult matter.

That protective duties will, to a certain extent, increase the price to the consumer is admitted; but it may equally be anticipated that once prices show an upward tendency local production will be stimulated and the competition thus set up will tend to lower the prices to the fair selling price level. (See Ashley: *Modern Tariff History*, page 174.)

The periodical variations in, or the permanent fixation of, a system of bounties is a tough problem. In the former case there will always be an element of uncertainty neutralising the stimulating effects of the system. In the latter, the assistance may prove inadequate. In the case of the silk industry in question, subsidies would have to be given both for cocoon production as well as for reeling, as the two are interdependant and essential parts of the same industry. In practice, this will give rise to a good deal of complications.

In other countries bounties have failed in their main objective. This has been the experience in France. "The system of bounties" says Rawley (page 166) "has not helped cocoon production. So far as we can judge from the results of the annual cocoon harvest, bounties have undoubtedly failed to realise their main objective, and the annual output has either remained stationary or declined". In the case of reeling there are considerable practical difficulties. M. Beaquis also says that the system of bounties did not lead to an increased production in France.

In either case a system of bounty is not likely to ensure an improvement in the technique of the industry. Says Taussig "because of the method by which it was allotted, the bounty seems to have stood in the way of technical advance in the industry". (Some aspects of the Tariff Question, page 224.)

Commenting on the bounties on Sugar in United States of America, Taussig remarks "A bounty seems to make a greater impression than a duty—not only on the general public, but also, strange as it may seem, on the producers whose affairs are directly concerned" and speaks of a bounty as being no more than an equivalent of a duty. The bounties on sugar in Europe, maintains Taussig "were not established of set purpose. They grew unexpectedly in the leading countries, out of a clumsy system of internal taxation" and "they imposed heavy burdens on the exchequer as well as on the domestic consumer in the bounty giving countries, and they were upheld by a senseless spirit of international jealousy".

Prof. Seligman says "The history of Sugar bounties is an excellent illustration of the danger and ultimate inefficacy of agricultural or industrial bounties on a large scale. It is for this reason that such bounties are now extremely rare".

Bounties seem to offer no great advantages over those of protective duties. Protective duties lead to effects of a two-fold character, in that they raise revenue and restrict imports. Bounties as shown above are of a more exacting nature, and act as a great strain on the exchequer and even in cases where they are preferred to import duties the question of affording

finance becomes an all important consideration as was experienced in the case of according protection to Steel in India solely by means of bounties. (Report of the Indian Tariff Board on Steel Industry, 1924, page 56.)

So far as the Mysore State is concerned the various forms of assistance rendered by the Government to maintain the industry is in itself so much subsidy or bounty given to the industry and this has proved utterly inadequate to protect the industry from foreign onslaught. The cost to Government in affording such assistance has during the past 11 years amounted to as much as Rs. 22,18,666. For an industry supporting roughly 2,00,000 families cultivating about 25,000 acres of mulberry on the average, the Government are already spending annually about Rs. 2,00,000. The Government are willing to continue to shoulder the burden in future years also and in an increasing measure if need be, but unless a fairly stiff tariff wall is created to shelter the industry from the aggressive form which foreign competition has, of recent years, assumed it seems that all that the Mysore Government can do to maintain this ancient industry will prove of no avail.

(23) *Letter from the Director of Industries and Commerce in Mysore, Bangalore, No. D. 4/38-39, dated the 12th November, 1938.*

With reference to your letter No. 841, dated the 9th August, 1938, to the Secretary to the Government of His Highness the Maharaja of Mysore, Development Department, I have the honour to send herewith the comments of the Government of His Highness the Maharaja of Mysore on the notes submitted by Mr. F. L. Silva to the Board on certain subjects.

COMMENTS ON THE NOTES OF MR. F. L. SILVA.

Production of Silk.

Mr. Silva suggests that the production of raw silk should be checked by collecting figures regarding the production of silk-waste. He further states that the production of silk-waste can be ascertained in a satisfactory manner by taking the figures of sea-borne reports and rail-borne statistics regarding silk-waste. This presupposes that all the silk-waste produced is exported from India and all the silk-waste produced in Mysore is transferred by rail and that the quantity of silk-waste transferred by rail from Mysore is exactly the same as the quantity produced.

It is not correct to say that the quantity of silk-waste exported by rail from Mysore is exactly the same as the quantity of silk-waste produced for the following reasons:-

- (i) Silk-waste is produced in small reeling establishments spread over all the sericultural parts of the State. The reeling establishments are in interior villages and the number of charkas in each establishment ranges from one to twenty. The silk-waste produced in big reeling establishments receives some amount of attention while sufficient attention is not paid to the collection and preservation of silk-waste produced in small establishments. There is thus variation in the quantity produced and made available for sale and allowance has to be made for this variation.
- (ii) The silk-waste available in reeling establishments is collected together at long intervals by agents of the purchasing firms. As such the producers have to preserve the silk-waste for some time before effecting a sale. The longer the waste is preserved, the more the loss in weight as the material itself loses weight and as insects, etc., attack the pupae in the waste. Allowance has to be made for such wastage.

- (iii) When demand for waste is limited and when prices are low, the waste is stocked for years, is attacked by white ants, rats, insects, etc., and the wastage during such storage is considerable.
- (iv) The waste produced in places where sericulturists themselves get their cocoons reeled—this happens when co-oon prices are low—is not generally preserved for sale, but is thrown about and lost. Allowance has to be made for such wastage.
- (v) All the silk-waste produced or collected is not sold away and transported immediately. Silk-waste merchants generally hold considerable stocks specially when prices are not favourable. It is not possible to ascertain accurately the quantity of silk-waste held in stock. There are still stocks of silk-waste four or five years old.

The rail-borne figures of silk-waste in Mysore do not thus help in checking the production of raw silk. The figures merely give a rough indication.

The production of silk in Mysore during 1937-38 is checked in the following ways:—

- (1) The silk-waste exported during a number of years.
- (2) The number of charkas and reeling establishments working in the State, the number of days they work, the quantity of silk produced.
- (3) The number of silk hand-looms and silk power-looms working in the State, and the consumption of silk by these looms during the year.
- (4) The quantity of silk exported from the State by rail, the quantity imported and the quantity consumed locally, making due allowance for exports by road, etc.
- (5) A rough survey of the sericultural villages in the State was conducted during 1937-38 and figures regarding area under mulberry, the seed requirements, the yield of cocoons, the production of silk, etc., were collected.

It is not an overstatement when the production of raw silk in Mysore during 1937-38 is said to be 795,000 lbs.

Cross-breed Seed.

It is not correct to say that there will be 10 to 15 per cent. double cocoons in cross-breeds. The percentage of double cocoons in cross-breeds in Mysore has been reduced from 9 per cent. to about 5 per cent. and in some areas to about 4 per cent. The rearers are being educated in the methods of rearing and mounting cross-breeds.

It has been the experience of filature people as well as charka owners in Mysore that cross-breed cocoons give a higher yield of silk than Mysore cocoons and usually pay higher prices for cross-breed cocoons. The reelers and the sericulturists have been working in co-operation so that the cross-breed cocoons free from double cocoons are offered for sale.

The statement that the percentage of double cocoons is rather on the increase is not borne out by facts.

Artificial hatching does not deteriorate univoltines and bivoltines. Even in Japan, the univoltines and bivoltines required for rearing in summer and autumn are now hatched artificially. The foreign races are imported into Mysore at intervals of two or three years and as cellular rearings are carried on in Government Farms, continuous selection is made and the vigour of the races maintained.

It is incorrect to say that the local race is not receiving sufficient attention and is tending distinctly to deteriorate. The Government of Mysore maintain a seed campaign establishment at a heavy cost in Mysore seed producing areas to maintain the purity of Mysore race, to improve by selection

and to improve the quality of seed cocoons produced. In fact the quality of Mysore seed cocoons has been considerably improved.

The market price of Mysore silk is not governed by the cross-breed seed, but by the market prices of imported silks.

Cultivation of Univoltines.

Experiments in rearing univoltines have been carried out in Mysore since 1914 when the Italian expert tried to introduce the univoltines from Italy. The experiments are still being carried on in Mysore with Japanese, Chinese and European races.

The note referred to by Mr. Silva was considered at the meeting of the Board of Sericulture in July, 1937, and after considering all aspects, it was decided that the univoltines cannot be introduced into Mysore for rearing on a large scale.

The imported univoltines and bivoltines are easily affected by pebrine, produce a large percentage of double cocoons and produce cocoons much smaller than those produced in home countries where climatic conditions are favourable for univoltines and bivoltines.

The results of experiments conducted with imported univoltines in 1937-38 in Channapatna are noted below:—

One lot of 50 layings and another lot of 6 ounces (six races) were obtained from France in August and September, 1937. These eggs were hibernated for varying periods and were reared in Channapatna Farm.

The first lot of 50 layings was divided into four batches. The worms in all the batches showed high percentage of pebrine. In fact worms of three batches had to be destroyed due to high percentage of pebrine. In one batch, about 20 per cent. pebrine was found and about 2,000 cocoons were obtained. Layings were produced from these cocoons, the moths showed about 1.7 per cent. of pebrine only and the generation is being continued.

The second lot of eggs of six races were hibernated and the resulting worms reared in Channapatna Farm. The percentage of pebrine was very high in all the races and almost all the worms had to be rejected. Out of about 150,000 worms brushed, about 300 cocoons only were obtained. The moths showed high percentage of pebrine and the eggs laid did not hatch at all.

Loose eggs of a Turkey race were received from a firm in Bombay. These eggs were hibernated and the resulting worms reared. The worms suffered from grasserie but no pebrine was noticed. The healthy worms appeared to be very good and formed good cocoons.

Layings were prepared from the cocoons produced for further rearing. The worms in the second generation were remarkably good and the rearing results more successful than in the first generation. The race is being continued.

If once the indigenous race is destroyed by importing univoltines from foreign countries for rearing, by all the sericulturists, then, the country will always be at the mercy of the foreign countries wherefrom seed has to be obtained. The case of Kashmir during the time of the Great War has to be remembered. Besides, a large amount of money will go out of the country by way of payment for seed.

After a good deal of research work, the Japanese have been using cross-breeds between two races for producing reeling cocoons in preference to pure univoltines and bivoltines.

The local race is acclimatised to local climate and conditions and it would be a folly to try to displace the race by foreign races. The best method is to improve the local race by selection, cross-breeding, etc., as has been done in Japan.

Measure of Protection.

Charka silk has to be protected so long as filatures capable of dealing with all the output of cocoons do not come into existence.

Filature reeled silk being superior in quality usually fetches a higher price than charka silk, provided sufficient quantities are available.

The measure of protection afforded to charka silk will be adequate for filature silk also.

(24) *Letter from the President, Tariff Board, to Mr. Rqm Chandra Rao, Director of Industries and Commerce, Mysore, No. 1330, dated the 4th December, 1938.*

In reply to question 56 of the Board's questionnaire you have given spot price in Yokohama per lb. Will you kindly let me know as early as possible how these prices are obtained and to what classes of silk they relate to?

(25) *Letter from the Director of Industries and Commerce in Mysore, Bangalore, No. A. 1/38 -39, dated the 14th December, 1938.*

With reference to your letter No. 130, dated the 4th December, 1938, regarding the spot prices for silk in Yokohama furnished in our replies to question No. 56 of the Tariff Board Questionnaire, I have the honour to state that the prices given as spot prices in Yokohama in our replies to the above question are for "D" Grade Silk and the information is taken from the Silk and Rayon Digest, a Weekly Paper published from New York and from the fortnightly reports of the foreign Raw Silk and Silk Waste Exporters Association of Yokohama.

6. Government of His Highness The Maharaja of Jammu and Kashmir.

(1) *Letter No. D. 6261/38, dated the 18th July, 1938, from the Assistant to the Resident in Kashmir, Srinagar.*

PROTECTION FOR THE SERICULTURE INDUSTRY.

With reference to your letter No. 510, dated the 14th May, 1938, I am directed to forward, for information, a copy of an express-letter, received from the Kashmir Government, No. D. 520/38-P. B., dated the 15th July, 1938, with enclosures in original.

Copy of an express-letter from the Kashmir Government to the Assistant to the Resident in Kashmir, No. D. 520/38-P. B., dated the 15th July, 1938.

Reference your letter No. D. 4301/38, dated the 21st May, 1938, regarding protection for the Sericulture Industry.

Replies to the questionnaire regarding handloom industry with six spare copies, received from the Kashmir Chamber of Commerce are sent herewith for transmission to the Secretary, Tariff Board. Replies to questions Nos. 1, 9, 13, 33 and 34 will follow.

2. Weavers get their supplies from:—

- (a) Kashmir raw silk and silk yarn from Government Silk Factory.
- (b) Spun silk and artificial silk yarn imported from outside India such as Japan, Italy and Germany.
- (c) Gold thread is not used in weaving silk goods. It is however used in hand embroidery and is imported from British India.

3. Yes. 5 per cent. of total production. It is imported from outside at Rs. 2 per lb.

4. No. Market estimation of Staple fibre is very low.

5. (a) Twisting is not done by handloom weavers. There is however a factory where throwing is done by machine.

(b) Winding, doubling and warping is done by cottago weavers.

(c) Boiling is done by Dhobis.

(d) Dyeing is done by dyers for weavers.

6. Generally Kashmir silk is used for both warp and weft.

7. This system does not prevail in Kashmir.

8. The following varieties of silk goods are produced:—

Sarees, Dupattas, Suitings, Shirtings, Handkerchieves, Gown pieces, Satin and Even Ninon, Crepe de Chine, Georgette, are produced where arrangements for throwing silk exist.

9. Nil.

10. Average five yards a day per weaver.

11. Kashmir mulberry silk. $\frac{1}{4}$ lb. of silk are used to manufacture 5 yards of silk as said in above No. 10.

12. Sarees—Width 45" and length 6 yards. Price Rs. 6 per piece. Plain woven.

Dupattas—Width 54" and length 3 yards. Price Rs. 4 per piece. Plain woven.

Shirtings—Width 27". Price As. 14 to Re. 1. Spun and Kashmir silk mixed.

Handkerchieves—24" x 24" at As. 8 each.

Gown pieces—Width 45" at Rs. 2 to Rs. 3 per yard.

Satin—Width 27" at Rs. 1-6 to Rs. 1-8 per yard.

Crepe de Chine—Width 45" at Rs. 2-8 per yard.

Georgette—Width 45" at Rs. 3 per yard.

13. Nil.

14. Spun silk is mostly used for cloth manufactured for embroidery purposes and is also used in suitings.

15. Kashmir silk direct from silk factories and other silk yarns from middlemen.

16. This system does not obtain in Kashmir.

17. They sell direct to weavers.

18. Kashmir mulberry silk yarn is stronger than imported silk but has less lustre than that.

19. It is sorted by Government Factory. The other part of the question does not arise.

20. No. The other part of the question does not arise.

21. The present position is the same as reported during the last Tariff Board enquiry.

22. No improvement in the method of re-reeling has been introduced and therefore the same trouble still exists, i.e., it is found that Indian silk is more difficult to wind than foreign silk.

23. Artificial silk is not much used in Kashmir.

24. In Kashmir there is no competition between raw silk and spun silk.

25. Variation in cost price has been from Rs. 3-12 to Rs. 6 per pound.

26. The present rate of duty on cloth and yarn has not given sufficient protection to the local yarn and manufacture.

27. It has hardly helped to survive the industry.

28. Plain weave—

Raw material at Rs. 5-12 per lb. Winding charges at As. 4 per lb.

Dyeing charges at As. 5 per lb. Weaving charges at Re. 1 per lb.

Cost of labour and other charges at Re. 1 per lb.

NOTE.—For 45" width silk cloth manufactured weavers are paid As. 2 per yard.

29. No assistance is rendered by the Co-operative Societies.

30. Partly locally and partly in British India. It is generally exported through post which costs 6 pies per yard as postage.

31. Demand for natural silk has decreased due to decline in Swedish movement in India.

32. Kashmir Government Factory. Between 15,000 and 20,000.

33 & 34. No.

(2) *Letter No. 113-B-38, dated the 25th July, 1938, from the Secretary to Government, Development Department, Srinagar.*

I have the honour to advise despatch to-day, by separate registered post, of our replies to the detailed questionnaire regarding the Sericultural Industry, with 5 spare copies as desired.

Copy of the relevant extracts from our replies to the questionnaire issued by the Tariff Board in 1933, which have been referred to in our replies to the present questionnaire have been appended for facility of reference.

Replies to the general questionnaire issued by the Indian Tariff Board in 1938 regarding the Sericultural Industry.

1. The protection has been in force now for about four years. Both the measure of protection granted and the period during which it has been in force have been inadequate to permit of any substantial progress in the industry.

During the first 2½ years of this period, with slight aberration towards the close of 1935, the condition of silk markets continued to be depressed and things seemed to be going from bad to worse as is reflected in the sales of those days which were effected *much below costs* and resulted in heavy deficits, year after year, in the balance sheets of the department.

Some improvement, however, was noticeable towards the close of 1936. This continued for about a year and helped the industry, after several years of continuous losses, to make the two ends meet. The result was that, as against curtailment of operations to which we were driven by sheer force of circumstances, i.e., our inability to compete with cheap foreign raw silk, we began to think of expanding the activities of the Department.

The rearing operations were cut down in the Province of Jammu from 7,598 ounces of silkworm seed reared in 1931-32 to 5,003 ounces in 1934-35 and in the Province of Kashmir from 47,538 ounces reared in 1929-30 to 30,007½ ounces in 1933-34, with somewhat improved outlook in the recent past we have increased the scale of rearing operations, the largest increase being represented by 7,998 ounces in Jammu during the current year and 38,645 ounces in Kashmir in 1936-37.

The departmental activity in respect of planting of mulberry trees has been intensified, no less than 63,799 trees having been planted in Jammu and 384,788 in Kashmir during the last 6 years.

Besides, in Kashmir, a number of Model Rearing Huts has been constructed at a suitable place with a view firstly to obtain healthy cocoons for reproduction of seed and secondly to give demonstrations in rational methods of silkworm rearing.

To keep pace with the extension of rearing operations in Jammu, preparations are being made to extend the reeling side of the industry as well. A new boiler is in the process of installation and a proposal for having another filature with the most modern and up-to-date machinery is under the consideration of the Government, funds having been applied for in the next year's Budget.

Unfortunately, there has been, since autumn last, a downward tendency in the market again. The recent sales are definitely disquieting in this respect, the price of our highest quality raw silk having fallen from Rs. 6-10 to Rs. 5 per pound. The industry seems to be drifting back to the same unenviable position which it held in 1933, protection granted by the Government of India in 1934 notwithstanding.

The industry is at present carried on over practically the same area as in 1933 with this difference that a few old villages have fallen off but, recently, owing to the extension of rearing operations some new villages have taken to silkworm rearing.

The information regarding the number of people engaged in the industry during the last four years is given in the table below:—

Year.	No. of persons engaged in the industry.				Permanent staff of the Department.	
	Rearing.		Reeling.			
	Rearers and others.		Reelers, Sorters, etc. (average daily attendance of labour).			
	Jammu.	Kashmir.	Jammu.	Kashmir.	Jammu.	Kashmir.
1933-34 . . .	9,365	38,355	196.69	1,790	117	347+62*
1934-35 . . .	6,443	42,346	197.72	1,748	117	347+62*
1935-36 . . .	7,007	43,218	184.40	1,729	117	347+84*
1936-37 . . .	7,846	44,910	201.90	1,607	117	347+84*

Figures for the current year in case of Jammu will definitely be more favourable.

Those engaged in rearing are partly and those engaged in reeling and the permanent staff are entirely dependent upon the industry for their livelihood.

Each of the hands mentioned in the above table represents a family unit of four or five members. The number of people benefited by the industry therefore amounts to about Rs. 40,000 in the Province of Jammu and over Rs. 2,00,000 in the Province of Kashmir.

2. The position in this respect now is the same as that in 1933 except that—

- (a) there is a separate Director of Sericulture for each Province and the two Provincial Departments have been made independent charges as from 21st June, 1936.
- (b) the system of sales through Agents in India has been given up. The Directors have established direct contact with the dealers in different markets and in a few cases with bulk consumers. Sales are effected by inviting tenders, from time to time, in the open market.

* Temporary hands employed in Mulberry Culture.

Out of the three Sale Agencies in Europe which existed in 1933, the two functioning on the Continent have been discontinued the only one now left being in London which concerns itself almost exclusively with the disposal of various superior grades of our silk wastes whose sale in India is still offering difficulties.

As regards finance the figures given in 1933 are brought up-to-date in the following table:—

Year.	Expenditure in rupees.		
	Jammu. Rs.	Kashmir. Rs.	Total. Rs.
1931-32 . . .	2,90,912	11,06,797	13,97,709
1932-33 . . .	3,04,995	11,35,376	14,40,371
1933-34 . . .	2,26,440	8,40,368	10,66,808
1934-35 . . .	1,75,076	8,59,907	10,34,983
1935-36 . . .	1,93,635	8,49,000	10,42,635
1936-37 . . .	2,18,395*	8,45,496†	10,63,891

Note.—The above figures do not include the charge on account of depreciation of buildings and machinery.

3. Assuming that the protection asked for will be granted, the maximum production of cocoons and raw silk attainable under the present organisation, in course of the next 20 years, is estimated as follows:—

	Cocoons in green Mds.	Raw silk in lbs.
Jammu	45,000	2,50,000
Kashmir	1,70,000	10,00,000

The data asked for in the second part of the question is given below:—

Year.	Cocoons produced in Mds.	Value according to Cost of Production in Rs.	Silk reeled in pounds.	Value according to average sale rate in Rs.
Jammu—				
1932-33 . . .	9,052	2,08,203	35,210	2,13,272
1933-34 . . .	7,191	1,58,125	35,413	1,47,923
1934-35 . . .	5,473	1,15,619	42,153	1,50,170
1935-36 . . .	6,249	1,32,048	41,512	1,96,101
1936-37 . . .	7,032	1,49,161	35,738	2,03,778
Kashmir—				
1932-33 . . .	31,913	7,05,962	2,13,021	13,76,870
1933-34 . . .	25,768	4,83,926	2,18,555	9,28,859
1934-35 . . .	31,577	5,67,216	1,87,407	6,71,542
1935-36 . . .	25,981	4,98,751	2,24,215	9,17,880
1936-37 . . .	29,947	6,56,959	1,65,909	9,15,956

* To this has to be added Rs. 13,006 on account of extra payment made during the current year to the rearers for work done in 1936-37. This has come out of the profits shown for 1936-37.

† To this has to be added Rs. 1,50,182 on account of extra payment made during the current year to the rearers and factory labourers for work done in 1936-37. This has come out of the profits shown for 1936-37.

For the reasons of variation between these figures and our estimate of the maximum production attainable kindly refer to remarks given in answer to the relevant part of question No. 1 above and similar enquiry in 1933. To attain the estimated maximum production under the existing organisation all that is needed is a favourable outlet for goods which, in itself, depends upon the continuance of an adequate measure of protection for a sufficiently long time. The potentiality is there, the resources in respect of important factors of the success of the industry, namely, favourable climate, suitable leat and the kind of labour needed are there. If only Government action to protect the industry from unfair foreign competition is forthcoming, then, not only will the industry be able to attain the dimensions estimated under the present organisation but also to develop, with necessary changes in the organisation, to such a pitch that it can occupy, in the industrial economy of the country, the same position of pre-eminence that it does in an advanced country like Japan. It is an admitted fact that Sericulture, in the ordinary course, cannot thrive without State aid in some form. This holds particularly good in a country situated like ours.

4. The information given in this respect in 1933 relates to Kashmir Sericulture. In the Jammu Province we rear chiefly—

- (a) the cross-breeds between European yellow and Chinese Golden, and
- (b) Bagdad white.

The silk content of the cross-breed cocoons has been found to be more or less the same as that of pure breeds, while that of Bagdad white is less than that of European yellow or the cross-breeds mentioned above. The average consumption of green cocoons per pound of raw silk produced, for the two classes of cocoons used, during the last 5 years, has actually been as follows:—

Year.	Average yield of rawsilk per green maund of cocoons.				
	Cross Chinese.			White.	
	lbs.	ozs.	drs.	lbs.	ozs. drs.
1932-33	Figures not available.				
1933-34	5	11	5	4	7 7
1934-35	6	4	4	5	7 8
1935-36	6	8	1	4	11 5
1936-37	6	3	12	5	0 13

No information is available to us with regard to the Chinese and Japanese cocoons. As regards the European cocoons, which correspond to ours, there is not much disparity between the European countries and this State in respect of the results obtained in reeling under equal conditions.

5. The kinds of silkworms reared in Kashmir have been given in 1933. Those reared in Jammu are—

- (1) Cross-breed between European yellow female and Chinese Golden male.
- (2) Cross-breed between European yellow male and Chinese Golden female.
- (3) Bagdad white.
- (4) Pure European yellow.
- (5) Pure Chinese Golden.
- (6) Pure Chinese white.

All these are univoltine breeds of *Bombyx Mori*.

6. As for the first part of the question kindly refer to the reply given in this connection in 1933.

As for the second part, an experiment was made in Jammu with the supply, free of cost, of Incubation Trays to selected rearers in almost all the Tehsils. This has helped those rearers to some extent in reducing wastage or loss in the important stage of incubation. The average yield of cocoons for these rearers, in two Tehsils for which the figures have been compiled, was 39 seers 15 chtk. and 39 seers 12 chtk. per ounce as against 37 seers 7 chtk. and 36 seers 9 chtk. respectively of those not provided with the trays. Extension of this improvement so as to cover all the rearings entirely depends upon the improvement in the financial position of the Department.

We have also tried in Jammu, on a small scale, at departmental cost, the experiment of disinfecting the rearing houses, specially affected by disease, by means of a spraying pump. This is of course in addition to the usual supply, free of cost, of necessary disinfectants to all rearers which they are required to use at the commencement and, when necessary, in course of the rearing operations.

Greater stress has been laid in both the Provinces on—

- (a) the construction of machans (shelves) in order to increase space available for rearing, and
- (b) the provision of windows and ventilators for increasing the aeration in the rearing houses.

The improvements mentioned above hardly involve any special expenditure on the part of the rearer. To persuade him to construct machans and provide windows in the rearing house is merely a question of fighting against his prejudice and unwillingness to change his conservative ways.

7. The data called for has been given in 1933 in regard to Kashmir Sericulture. So far as it is available in regard to Jammu Sericulture it is given below:—

Race or variety.	Number of days approximately.	Number of cocoons to a kilogram.	Length of filament meters.	Denier approximately.
Cross Chinese .	30 to 33	550 to 600	...	2.75
Bagdad white .	33 to 35	350 to 450	...	2.75
European yellow .	31 to 33	400 to 500	800	3.00
Chineso golden .	27 to 29	550 to 700	650	2.50
Chinese white .	25 to 27	700 to 850	500	2.25

8. For the improvements effected kindly refer to remarks given in answer to question No. 6 above.

The advantage of using properly constructed Incubation Trays with muslin bottom lies in the facility of spreading out and handling the silkworm seed in course of incubation so as to ensure uniformity of heat to all the seed. This helps the regular hatching of silkworms which is so important in silkworm rearing. The use of trays further enables the picking up of baby worms in a more rational way than is the case with ordinary baskets or earthen and other pots of sundry shape and construction and paper sheets, etc., used for the purpose by the rearers.

Disinfection by means of spraying pumps ensures immunity from any germs lurking behind in crevices of ceilings and out-of-the-way corners of the ordinary dwelling houses of zamindars which are used for rearing purposes.

The advantage of constructing machans for increasing the space and of windows and ventilators for increasing the aeration is obvious, the main drawbacks of our rearings being the inadequacy of accommodation available for rearings in ordinary dwelling houses of zamindars and the unhygienic conditions in which such rearings are conducted.

9. In Jammu silkworms are reared exclusively from the imported seed. The other parts of the question therefore do not arise in case of that Province.

So far as Kashmir is concerned, the information asked for is embodied in the reply given to question No. 8 of the last questionnaire.

The quantity of disease-free seed reproduced locally and the cost of production per ounce in each of the last 6 years are given below:—

Year.	Quantity produced in ounces of 30 grs.	Cost of Production per ounce.
		Rs. A. P.
1931-32	17,154	2 1 4
1932-33	18,264	1 13 5
1933-34	18,596	1 13 11
1934-35	23,753	1 7 10
1935-36	21,200	1 10 11
1936-37	17,297	1 14 1

10. The law in the State forbids the rearer to use any seed except that provided by the Department which is all disease-free.

11. The silkworms reared in this State are exclusively univoltine.

The other parts of the question therefore do not concern us

12. No seed is produced in the Jammu Province. In Kashmir the matter is under study.

13. The seed imported into the Jammu Province is exclusively cellular which is supposed to be free from Pehrine disease. With regard to Kashmir the information asked for is embodied in the reply to question No. 8 of the last questionnaire.

14. Kindly refer to answer given in this respect in 1933.

The improvements effected during the last 5 years have been explained in answer to questions Nos. 6 and 8 above. The result of these improvements in case of Jammu is, in a large measure, reflected in the average yield of cocoons which, for the last quinquennium, amounts to 45 seers 11 chtk. per ounce of seed distributed and is higher than any similar average for any similar period in the past. The corresponding figure for Kashmir during the last 5 years is 33 seers 1 chtk. which is also better than the figure of the quinquennium preceding.

15. Kindly refer to the answer given in this connection in 1933 (Question No. 10).

16. In Jammu the use of silkworm chrysalisses as manure has been tried in mulberry nurseries with fairly satisfactory results as compared with ordinary farm manure used before. Attempts have also been made to propagate the growth of foreign early budding varieties of mulberry in order to enable the rearers to start the rearing operations early enough and thus avoid the heat waves which generally overtake the worms in later stages of rearing in this Province.

For improving the yield of leaf from the new plants in Kashmir grafting of the seedlings in nurseries is now being carried on on a larger scale.

As for part (b) of this question, kindly refer to the answer given in 1933 (Question No. 10).

The indigenous mulberry produces one leaf crop annually. Tree cultivation is preferable.

In view of the circumstances explained in 1933 it is not practicable to work out the statement of costs asked for.

17. Kindly refer to the answer given in this connection in 1933 (Question No. 11).

18. The following statement will show what the position in this respect has been during the last 5 years.

	Price in May—June.					
	1933.	1934.	1935.	1936.	1937.	1938.
	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.
Wheat Jammu market per maund in Rs.	2 11	2 2	2 6	2 7	2 10	2 6
	to	to	to	to	to	to
	3 1	2 6	2 12	2 10	3 1	2 12
Rice Jammu market per maund in Rs.	4 9	3 11	4 13	4 12	4 6	3 12
	to	to	to	to	to	to
	4 12	4 1	5 0	4 13	4 8	4 2
Rawsilk—Japan XXX—(Eng. per pound in sh.).	..	4 10	6 3	6 0	8 7	6 11
			to	to	to	
			6 5	7 0	8 10	
Canton Steam Filature (Bangalore per lb. in Rs.).	..	4 2	4 10	4 10	4 11	3 15
		to	to	to	to	to
		4 3	4 15	5 0	5 5	4 1
						(upto 15th June).

The above statement is intended only to give an idea of the comparative rise and fall of prices of the two principal foodstuffs of India and raw silk.

It has not been possible to take for comparison the prices of foodstuffs and raw silk in the same market.

19. Kindly refer to the remarks given in answer to question No. 16 above. The best possible plants are being raised in our nurseries which are worked under efficient management. The number of trees planted

during the last 10 years is given below as indicating the progress made in this direction.

Year.	No. of plants.	
	Jammu.	Kashmir.
1928	3,465	45,506
1929	4,931	44,198
1930	6,035	41,265
1931	5,550	46,750
1932	1,850	40,700
1933	7,670	51,451
1934	15,890	61,840
1935	13,842	70,132
1936	12,392	84,980
1937	12,146	75,685

20. The present position in respect of these matters has been explained in answers given to the previous questions.

21. The average yield of cocoons per ounce of seed (univoltine breeds only which are reared in this country) during the last 5 years has been as follows:—

Year.	Yield per ounce of seed.			
	Jammu.		Kashmir.	
	Srs.	Chks.	Srs.	Chks.
1932-33	47	14	38	9
1933-34	41	1	34	5
1934-35	43	12	34	8
1935-36	41	9	27	3
1936-37	43	7	30	15

As stated before the average for these 5 years in case of Jammu is higher than that for any similar period before. It is the highest obtained anywhere in India and does not compare unfavourably with the yield of rearings of average quality in Europe. This does not mean that there is not much room still left for improvement.

Even in case of Kashmir the average yield for these 5 years is higher than that of the 5 years immediately preceding.

The whole system of mulberry plantations in the State being different, it is not practicable to give the average yield of cocoons per acre of mulberry trees as asked for.

22. As stated before, we rear only the univoltine races.

Recently, however, an experiment was made in Jammu to try bivoltine seed from Madras side but the seed could not stand the long transit by rail, hatching having commenced before the arrival of the consignment at the destination. The experiment therefore did not lead to any satisfactory result. We are repeating the experiment this year and trying to reduce the period of transit by ordering the seed through post.

23. The total works expenditure incurred in the production of cocoons during the last 5 years is given in the statement below:—

Statement showing Cost of Production

JAM

Year.	Amount of cocoons produced in maunds.	Price paid to Rearers.	Rearing requisites and temporary technical supervision.	Price of silkworm seed.	Expenditure incurred on Mulberry Plantation.	Rewards for good results shown.	Contingencies and House rent.	Half salary of Gazetted staff.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1932-33 . .	9,052	1,59,061	3,323	12,850	815	1,175	416	4,805
1933-34 . .	7,191	1,04,468	2,224	14,226	652	..	333	5,292
1934-35 . .	5,473	68,531	536	13,062	776	..	464	5,585
1935-36 . .	6,249	81,573	663	14,617	624	26	484	6,113
1936-37 . .	7,032	93,506	700	15,048	483	96	418	6,685

* The extra payment made during the current year for the cocoon crop of 1936-37

Statement showing Cost of Production

KASH

Year.	Amount of cocoons produced in maunds.	Salaries and Establishment.	Price of cocoons.	Price of seed from Europe.	Repairs.	Contingencies including uniforms.	Fuel.	Rearing and local seed.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1932-33 .	31,913	64,272	5,52,340	26,712	..	14,614	1,491	24,997
1933-34 .	25,768	58,259	3,23,993	41,486	206	9,140	938	22,783
1934-35 .	31,577	38,408	3,98,125	54,279	500	1,000	1,547	17,730
1935-36 .	26,981	61,439	3,30,317	41,523	1,769	8,013	620	22,758
1936-37 .	29,947	61,147	4,91,021	40,253	193	12,222	804	26,978

Note : —The above figures do not include the charge on account of Interest on Capital figures do not include even the charge on account of Pension Contribution Machinery, however, has been debited.

of cocoons, per maund.

MU.

Half Establishment charges.	Half postage and telegram charges.	Fire Insurance.	Customs Duty	Sorting and Baling charges.	Travelling Allowance.	Stationery and tents.	Depreciation charges.	TOTAL.	Cost per maund of cocoons.
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs. a. p.
13,825	391	641	3,224	2,290	3,277	100	2,000	2,08,203	23 0 0
15,971	415	900	4,000	3,908	3,276	100	2,360	1,58,125	22 0 0
16,006	351	643	2,429	2,241	2,912	83	2,000	1,15,619	21 2 0
15,733	368	887	3,759	1,723	3,342	136	2,000	1,32,048	21 2 0
13,335	536	775	4,184	2,204	7,262	626	2,067	1,40,161	21 3 4*

at the rate of Rs. 1-14-0 per green maund has not been taken into consideration.

of cocoons, per maund.

MIR.

Postage and telegrams.	Electric Power charges.	Travelling Allowance.	Fire Insurance.	Stationery.	Depreciation.	Rewards.	Mulberry Culture Expenditure.	Pension contribution.	Total Expenditure.	Cost per maund of cocoons.
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs. a. p.
157	171	5,879	912	..	14,417	..	..	..	7,05,962	22 1 11
135	65	5,541	1,796	..	13,584	..	..	..	4,83,926	18 12 6
100	949	1,530	1,776	210	13,009	..	38,053	..	5,67,216	17 15 4
173	934	6,816	1,993	149	11,308	1,039	..	..	4,88,751	18 13 0
150	761	1,642	1,912	433	9,865	..	..	578	6,56,959	21 15 0

or cost of leaf supplied free from Government lands. With the exception of 1936-37 the of the employees concerned. The charge on account of Depreciation of Buildings and

24. The actual cost of production per maund of cocoons, excluding the charge on account of interest on Capital and cost of leaf supplied free from Government lands but including charge on account of depreciation of buildings and machinery has been given above. The price, per pound, year to year, works out as follows:—

Year.	Cost per pound.	
	Jammu.	Kashmir.
	As. p.	As. p.
1932-33	4 7	4 5
1933-34	4 5	3 9
1934-35	4 4	3 7
1935-36	4 4	3 9
1936-37	4 3	4 4

The price of cocoons having been reduced to uneconomic levels during 1935-36, signs of apathy on the part of rearers to take to Sericulture were visible on all sides. The price offered no incentive to the zamindars to grow mulberry trees for providing food for silkworms. With some improvement in market conditions during 1936-37, therefore, the price of cocoons had to be increased during the current year retrospectively with effect from 1936-37. The arrear payment on this account for 1936-37 amounting approximately to Rs. 13,000 in case of Jammu and Rs. 1,12,294 in case of Kashmir has been made during the current year. Taking this into consideration the cost per pound for 1936-37 would in case of Jammu amount to about As. 5 per pound as against As. 4-3 shown above. The cost of cocoons during the current year would similarly be higher. This is an important point to bear in mind in dealing with the cocoon costs.

25. In view of the peculiar conditions obtaining here the question does not arise in our case.

26. The whole outturn of raw silk in this State is reeled exclusively by power driven machinery.

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27. The data asked for is given in the statement below:—

JAMMU.

Year.	Rawsilk.		Samakh.		Guddar.		Nim-Gudar.		Nimtar Bandna.		Khokhru.	
	Quantity in lbs.	Average sale rate per lb. in Rs.	Quantity.	Rs.	Quantity.	Rs.	Quantity.	Rs.	Quantity.	Rs.	Quantity.	Rs.
	lbs.	Rs. A. P.	lbs.	Rs. A. P.	lbs.	A. P.	lbs.	A.	lbs.	Rs. A. P.	lbs.	A. P.
1932-33	35,209	6 0 11	15,491	0 12 6	1,517	6 6	..	..	346	..	8,985	1 8
1933-34	35,413	4 2 10	17,728	0 12 2	1,115	2 7	480	4	191	1 6 3	11,199	1 3
1934-35	42,153	3 9 0	18,175	0 14 6	853	..	..	..	162	1 11 9	14,627	2 4
1935-36	41,512	4 11 7	19,046	0 15 4	782	5 5	..	..	249	2 3 6	5,252	2 8
1936-37	38,738	5 4 2	15,384	1 3 2	1,100	8 5	779	..	269	2 11 3	13,100	6 5

KASHMIR.

Year.	Total quantity produced.		Average price obtained.		Quantity of dry cocoons to produce a pound of silk.		
	Silk.	Silk-Waste.	Silk.	Waste.			
	lbs.	lbs.	R. A. P.	A. P.	lbs.	oz.	dr.
1932-33 . . .	213,021	133,748	6 7 5	..	3	15	9
1933-34 . . .	218,555	134,885	4 4 0	9 8	3	13	11
1934-35 . . .	187,407	101,048	3 9 4	3 4	4	2	4
1935-36 . . .	224,215	132,618	4 1 6	7 9	3	12	14
1936-37 . . .	165,909	87,530	5 8 4	7 4	4	2	8

As stated before the whole raw silk is flatware reeled. The average yield of raw silk from the cocoons reeled in case of Jammu has been given in answer to Question No. 4 above. In case of Kashmir it is as follows:—

Year.	Average yield of silk per green maund of cocoons.		
	lbs.	ozs.	drs.
1932-33 . . .	6	3	11
1933-34 . . .	6	8	2
1934-35 . . .	6	5	2
1935-36 . . .	6	13	6
1936-37 . . .	6	9	6

28. Since we do not produce any hand reeled silk the question does not concern us.

29. The total works expenditure incurred upon reeling, during the last 5 years, has been as follows:—

Year.	Works Expenditure.	
	Jammu.*	Kashmir.†
	Rs.	Rs.
1932-33 . . .	57,926	13,39,094
1933-34 . . .	52,802	11,00,115
1934-35 . . .	46,725	8,68,919
1935-36 . . .	46,969	9,51,614
1936-37 . . .	43,264	8,57,402

* The figures do not include the cost of raw material. The charge on account of depreciation of buildings and machinery has been debited.

† Inclusive of charge on account of depreciation of buildings and machinery and cost of raw material.

The works cost of reeling one pound of raw silk with a full details is given in the following statement:—

Statement showing cost of production of Raw silk, per pound.

JAMMU.

Year.	Amount of silk reeled.	Cocoons issued for reeling.	Reeling and Baiting charges.	Fuel.	Commission to Agents.	Establishment charges.	Half Salary.	Half postage and telegrams.	Fire Insurance.	Customs Duty.	Stationery.
	Lbs.	Mds.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1932-33	33,209	6,481	39,325	7,665	2,942	12,177	4,804	391	640	565	100
1933-34	35,413	6,697	38,480	7,690	65	11,692	5,292	414	419	967	100
1934-35	42,153	7,013	35,166	7,032	947	11,700	5,584	352	334	1,436	82
1935-36	41,511	7,188	34,266	7,212	3,207	12,676	6,113	168	192	419	136
1936-37	38,737	6,639	33,130	8,082	514	14,096	6,684	537	231	453	114

Year.	Depreciation on buildings and machinery.	Contingencies and repairs.	House rent and travelling Allowance.	Total.	Product value of silk.	Net works cost of silk.	Rs. a. p.	Add value of cocoons consumed per pound.	Add interest on capital.*	Add charges on account of mulberry leaf supplied from State lands.	Total cost of production of silk per lb. without any profit.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
1932-33	2,000	1,403	72,612	76,015	14,086	57,926	1 10 4	4 6 2	0 15 4	0 8 0	7 7 10
1933-34	2,360	245	67,724	70,329	14,922	55,407	1 7 10	4 2 6	0 13 8	0 8 0	7 0 0
1934-35	2,000	415	65,748	68,163	19,023	46,725	1 1 8	3 10 1	0 10 11	0 8 0	5 14 8
1935-36	2,000	326	66,915	69,241	19,946	46,969	1 2 0	3 10 0	0 6 11	0 8 0	5 10 11
1936-37	2,067	291	67,099	70,457	25,932	44,525	1 1 10	3 9 3	0 9 3	0 8 0	5 12 4†

* Figures of Kashmir Sericulture adopted.

† Add charge on account of extra payment at the rate of Rs. 1-14-0 per green maund made during the current year for cocoon crop delivered in 1936-37 which amounts roughly to annas 6 per lb. of raw silk. The actual cost, without any profit, therefore amounts to Rs. 6-2-4 per lb. for 1936-37.

If the said extra payment had been made at the same rate at which it was made in Kashmir Province, i.e., Rs. 16-4 per green maund, the actual cost without profit, would come to Rs. 6-8-4. Again, the question of restoring 12½ per cent. temporary cut in labour wage retrospectively with effect from 1936-37, as has been sanctioned in case of Kashmir, is under correspondence. If the same is sanctioned for Jammu as well, the cost of silk in that case would amount to about Rs. 6-10.

KASHMIR.

Year.	Quantity of silk reeled.	(Vegetable issues for reeling.	Salary and Subsidy.	Travelling Allowance.	Postage and Telegrams.	Reeling Baling.	Repairs.	Fire Insurance.	Fuel.	Electric power charges.	(Contingencies including tools and forms.	Depreciation.
	Lbs.	Mds.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1932-33	213,021	34,181	69,762	89	608	2,50,050	6,562	8,210	45,894	7,537	4,627	43,251
1933-34	218,535	33,581	72,392	700	700	2,02,172	5,593	8,744	37,900	7,331	5,660	40,754
1934-35	187,407	29,637	62,643	40	632	1,68,290	3,359	5,510	31,830	6,665	2,433	39,025
1935-36	224,215	32,787	75,117	..	518	1,95,263	5,226	3,152	32,800	6,188	3,892	33,924
1936-37	165,509	25,229	75,598	4,926	450	1,87,897	9,215	3,067	26,777	6,349	3,175	29,597

Year.	Stationery.	Pension contribution.	Total Expenditure.	Deduct value of byc products.	Net works cost of silk produced.	Net works cost of silk per pound.	Add value of cocoons consumed per pound.	Add interest on Capital.	Add charges on account of mulberry leaf supplied from State lands.	Total cost of production per lb.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
1932-33	..	..	4,36,589	78,729	3,57,860	1 10 11	4 3 9	0 15 4	0 8 0	7 6 0
1933-34	..	..	3,81,966	61,816	3,20,150	1 7 6	3 4 6	0 13 8	0 8 0	6 1 8
1934-35	310	..	3,20,737	47,785	2,72,952	1 7 3	2 14 10	0 10 11	0 8 0	5 9 0
1935-36	366	..	3,56,446	50,452	3,05,994	1 5 10	2 10 8	0 6 11	0 8 0	4 15 5
1936-37	310	1,736	3,49,094	53,120	2,93,974	1 12 5	3 1 0	0 9 3	0 8 0	5 14 8

It will be seen from the above figures that a substantial reduction has been effected in the cost of production. Among the several measures of economy and retrenchment in expenditure adopted to achieve this end, the most important was the reduction effected in the price of cocoons and the wages of factory labourers. In the course of the last 5 years or so, the former was reduced from Rs. 18-12 to Rs. 11-4 in the case of Jammu and Rs. 12-8 in the case of Kashmir and the latter was reduced by about 30 per cent. in the case of Jammu and 20 per cent. in the case of Kashmir. This led to serious and legitimate discontent and, as soon as market conditions improved, the Government had to increase the price paid for cocoons and restore, partly or wholly, the temporary cuts imposed on the wages of the labourers. The above figures cannot therefore be taken as representing fair cost.

30. Yes. The Indian filatures are at some disadvantage in respect of (a) yield and quality of cocoons and (b) quality of labour. As is evident from the results obtained, much has been done in this State to improve methods in these respects but much still remains to be done. The question is whether the industry will have the assistance it needs from the Government of India in the shape of the protection asked for to enable the industry to improve its methods and compete successfully with foreign rivals. The foreign countries have had a long lead and the advantage of elaborate research. We have to make good the deficiency in this respect.

31. We hold by the views we expressed in this respect in 1933 (Question No. 26). The last Tariff Board seems to have agreed with those views.

32. The maximum capacity of the factories for which costs have been given is 192 basins in case of Jammu and 844 in case of Kashmir which can turn out respectively over 80,000 and 400,000 pounds of silk per annum. The output of raw silk and wastes for the last 5 years for the number of basins actually worked in both the factories has been given in answer to question No. 27 above. The disparity between the maximum capacity and the actual output is explained by the fact that, owing to the adverse conditions of the market, we are not in a position to work the filatures to their maximum capacity.

33. Kindly refer to answer given to question No. 1 above.

34. The average daily attendance of labour for the last 4 years has been given in answer to question No. 1 above. As for the other parts of the question, kindly refer to the answer given in this connection in 1933.

35. The rates of wages paid to reeler in our filatures are as follows:—

Class of reeler.	Jammu.*		Kashmir.†
	Regular.	Irregular.	
	Rs. A.	Rs. A.	Rs. A.
Master reeler	1 0	0 14	...
	to	to	
	1 2	1 0	
8 skeiner	1 0	0 15	1 0
7 skeiner	0 14	0 13	...
6 skeiner	0 12	0 11	...
5 skeiner . . . . .	...	...	0 10

* During the last few years the scale of wages paid to labourers in the factory has been subjected to various temporary cuts, the last of which was 12½ per cent. This last cut has been restored as from October last and the question of restoring it retrospectively with effect from 1936-37, as has been done in case of Kashmir, is under correspondence. Further cuts have to be restored as soon as market conditions improve.

† During the years 1933-34, 1934-35 and 1935-36 the above wages were subjected to an emergency cut of 20 per cent., while in the year 1936-37

As for the other parts of the question, kindly refer to the answer given in this connection in 1923 (Question No. 30).

36. The figures, as they stood at the end of the last financial year, are as follows:—

	Jammu.	Kashmir.
(a) leases and concessions . . . . .	...	...
(b) lands	These were acquired free from time to time, but if valued according to the present market rate they are worth about Rs. 55,000 in case of Jammu and Rs. 1,80,000 in case of Kashmir.	
(c) buildings (after deducting depreciation)	Rs. 71,422	Rs. 3,63,993
(d) plant and machinery (after deducting depreciation)	Rs. 16,324	Rs. 2,67,421
(e) other assets	Exact information not compiled so far, the industry being a Government concern.	

37. The figures communicated in this respect in 1933 (Question No. 32) hardly call for any change at the present day.

38. The information asked for is given below:—

Year.	Rate of Depreciation. Per cent.	Amount written off.	
		Jammu. Rs.	Kashmir. Rs.
1933-34—Buildings	5	3,985	21,232
Plant and machinery	10	2,001	38,592
1934-35—Buildings	5	3,840	20,513
Plant and machinery	10	1,891	35,377
1935-36—Buildings	5	3,824	19,698
Plant and machinery	10	1,706	32,538
1936-37—Buildings	5	2,759	19,157
Plant and machinery	10	1,814	29,713

NOTE.—Charges on account of repairs being available under both the heads of buildings and machinery taken together, these could not be deducted separately from the above figures under these two heads and are therefore given as under:—

Year.	Jammu.	Kashmir.
	Rs.	Rs.
1933-34	1,269	5,799
1934-35	890	3,859
1935-36	289	6,995
1936-37	273	9,108

No Reserve Fund has so far been constituted, the industry being a State monopoly.

the full scale was paid as the year had shown some profit. During the current year of 1937-38 the wages are subject to a cut of 10 per cent. only, but in the event of the Department showing profit on the working of the year this cut of 10 per cent. will also be paid back.

39. The working capital considered to be necessary for the size of the Kashmir Silk Factory in the present circumstances is Rs. 11½ lakhs approximately.

At present the working capital is obtained from the Government.

40. "Throwing" is not carried on at all in this State. The other part of the question therefore does not arise.

41-43. This does not concern us.

44. Since our raw silk is all flature reeled, no re-reeling operation is carried on in the State.

45. Our raw silk, being of superior quality, is mainly used in the preparation of warps for the manufacture of famous Benaresi sarces and dupattas, brocades, crepes and georgettes, shirting and suiting cloth, daryayi and mashedi longis. It is also used in the manufacture of gold and silver thread. It has been tried, on a small scale, even in the manufacture of hosiery.

The silk wastes sold in India are used in the manufacture of what is called Matka silk.

46. The demand is entirely a question of price. If we can afford to sell at rates comparing favourably with those of the Chinese and Japanese silks competing in the market, we can easily dispose of ten times our present outturn. The Indian customer, owing perhaps to the economic conditions of the country, has a fancy for cheap goods and does not care very much for quality. In the present condition of the market we cannot sell our silk, which is of superior quality, at competitive rates without involving the department in heavy loss. Protection is therefore needed to enable the industry to compete with foreign countries, thereby giving the consumer a chance to take to indigenous silk and appreciate its value.

The information regarding the total production of raw silk in this State has been given in answer to question No. 32 above.

47. The information asked for is given below:—

JAMMU.

Year.	Local sales.		Sales in India.		Sales in Europe.	
	Silk in pounds.	Silk waste in pounds.	Silk in pounds.	Silk waste in pounds.	Silk in pounds.	Silk waste in pounds.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1932-33 . .	..	..	18,227	43,260	..	..
1933-34 . .	389	..	34,255	2,937	..	21,000
1934-35 . .	376	..	61,877	14,301	..	5,750
1935-36 . .	555	..	37,984	20,482	..	29,750
1936-37 . .	378	..	42,405	14,512	..	22,000

KASHMIR.

Year.	Quantity sold in.							
	Kashmir.		India.		Europe.		Bangkok and Rangoon.	
	Silk.	Wastes.	Silk.	Wastes.	Silk.	Wastes.	Silk.	Wastes.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1932-33 .	8,474	..	102,638	..	..	..	1,869	..
1933-34 .	5,906	..	190,743	8,247	..	86,100	8,007	..
1934-35 .	20,489	..	267,967	287,270	900	28,290	13,349	..
1935-36 .	12,806	..	225,886	114,918	600	80,688	10,680	..
1936-37 .	14,309	..	182,253	102,996	..	12,054	1,735	..

Local sales have been effected direct by the Department. All other sales up to December, 1935, have been made through the Agents appointed for the purpose. Since December, 1935, sales in India too have been effected direct by the Department, by inviting tenders in the open market.

Sale of silk wastes in Europe is being effected through the Agents in England, the terms and conditions of Agency being the same as those in 1933 with the only difference that the rate of commission now paid is $1\frac{1}{2}$ per cent. as against 1 per cent. paid before.

48. There has been absolutely no improvement with regard to export of raw silk to foreign countries. As stated in some other connection before, all exports to foreign countries are confined to some superior grades of silk wastes which cannot yet find a suitable market in India.

The establishment of a conditioning house or houses in India would certainly be helpful to raw silk trade in general. Without such conditioning houses the trade is undoubtedly suffering from the drawbacks so elaborately explained in the Report of the last Tariff Board. It is only the proper testing of silk through a conditioning house that can enable the manufacturer to give each quality its proper place in the scale of prices ruling in the market. It will further eliminate the uncertainty of weight and quality which at present constitutes a fruitful source of disputes between the seller and the purchaser.

49. We usually sell our products on ex-factory basis. The railway freight payable, however, from Jammu to the principal up-country markets has been given to the last Tariff Board in 1933. Roughly speaking, the transport charges from our factories to the principal markets in India may be taken to be the same as those involved for foreign silks from ports of import to the same centres. The same conclusion, broadly speaking, seems to have been arrived at by the last Tariff Board.

50. So far as Jammu Sericulture is concerned there has been no sale of raw silk in Europe during the last 5 years. As for silk wastes, the prices obtained in Europe and India, during the same period, are given below:—

Prices per pound in Rupees.

Year.	Sarnakh.		Gudar.	
	India.	Europe.	India.	Europe.
	As. p.	Rs. A. p.	As. p.	As. p.
1932-33 . . .	12 6	...	6 6	...
1933-34 . . .	13 6	0 12 0	8 0	2 7
1934-35 . . .	...	0 14 6	...	...
1935-36 . . .	...	0 15 4	...	5 5
1936-37 . . .	...	1 3 2	...	8 5

In regard to Kashmir, the information asked for is given below:—

Year.	Average rates obtained.							
	In Europe.		In India.		In Bangkok and Rangoon.		In Kashmir.	
	Silk.	Waste.	Silk.	Waste.	Silk.	Waste.	Silk.	Waste.
	Rs. a. p.	a. p.	Rs. a. p.	a. p.	Rs. a. p.	Rs.	Rs. a. p.	Rs.
1932-33 . . .	..	..	0 6 7	..	6 6 0	..	7 2 6	..
1933-34 . . .	..	10 6	4 3 7	1 7	4 15 0	..	4 3 3	..
1934-35 . . .	3 11 2	10 2	3 8 11	2 7	4 3 1	..	3 9 1	..
1935-36 . . .	3 14 11	11 7	4 0 5	5 1	5 2 4	..	4 7 0	..
1936-37 . . .	..	13 8	5 8 5	11 7	5 4 3	..	5 7 1	..

The rates shown as realized in Europe are exclusive of home charges but inclusive of freight charges which work out to about As. 3 per pound.

There is hardly any market in India for the superior grades of our silk wastes, hence the comparison called for is not possible. Roughly, however, we have to spend about As. 2 per pound in case of Jammu and As. 3 in case of Kashmir, on goods exported to Europe, in the shape of freight and other charges.

51. The remarks of the last Tariff Board regarding the absence of facilities for sorting or grading hardly apply to our raw silk. We have a distinct system of grading based on the difference in the process of manufacture and quality of raw material used for each grade. The system has been explained to the last Tariff Board and the information then given still holds good. As remarked in some other connection above, the establishment of a conditioning house in India would naturally popularize the system of grading elsewhere in India and people would be able to discriminate between the high and low qualities of silk.

52. Owing to the peculiar conditions obtaining here the question does not arise in our case.

53. The Jammu and Kashmir Sericulture Departments do not import any foreign silk. The information regarding the imports of foreign silk into the State, however, is being obtained from the Customs Department and the same, so far as it is available, will be submitted separately or at the time of oral evidence.

54. The classes of imported silk which compete directly with our silk are the Chinese and Japanese filatures, and thrown silk and silk warps from Japan. This competition is naturally the keenest.

Against our Dopost silk there is the direct competition of what is classified in the Indian Customs Tariff as Dupion all kinds and waste products.

There is indirect competition, in varying degree, of our raw silk with hand-reeled raw silk from China and Spun silk and Artificial silk yarn from all countries.

The handloom weavers needing superior quality of raw silk generally import the Chinese and Japanese filature reeled raw silk.

An idea of the comparative prices (lowest and highest limits) of Canton Steam Filature and our raw silk, as ruling in the Indian market, during the last 4 years, is given below:—

Year.	Canton Steam Filature (Bangalore) 20/22 and 28/32 deniers.		Year.	Jammu Rawsilk excluding Puda and Dopost silk (ex-factory).	
	Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.
1934 (July to Decem- ber).	4 0 0 to 4 8 0		1933-34 . .	4 2 0 to 5 4 0	
1935 . . .	4 5 0 to 5 12 6		1934-35 . .	3 10 0 to 4 6 0	
1936 . . .	4 7 0 to 5 11 6		1935-36 . .	4 7 0 to 5 12 0	
1937 . . .	4 11 0 to 5 14 0		1936-37 . .	4 13 0 to 7 0 0	
1938 (1st 5½ months) .	3 15 6 to 6 0 0		1938 (1st 5½ months).	4 12 0 to 6 0 6	

55. The competition between Indian silk and Artificial silk and staple fibre is only indirect. It is not practicable to determine the exact extent to which such competition affects the market for our raw silk.

56. Kindly refer to the answer given in this connection in 1933 (Question No. 46). That it is not India alone but even other advanced countries, concerned about the manufacture of raw silk, are equally affected by unfair competition from Japan is evident from the extracts, reproduced below, from a letter received in Jammu Sericulture Office in 1934 from Societe Francaise De Sericulture, a most responsible body of Sericulturists in France.

“The International Silk Federation, which met recently at Lyons, passed a resolution by the terms of which each National Delegation agreed to address to its respective Government a demand that exceptional measures and restrictions be taken against Japan with regard to the imports, not only of raw silk, but of all silk cloths, into the countries in which the National manufacturers are unfairly hit by Japanese competition.

According to latest information 24 countries have already begun to restrict the imports of certain Japanese products. There can be no doubt that, under pressure from the local industries, similarly handicapped, equivalent measures will be taken to protect the cocoons and silks."

57. The question of the comparative merit of the Indian and the imported raw silk has been fully discussed in the last Tariff Board Report. We have only to submit in this connection that during the last 4 years visible improvement has been effected in quality in all respects including the winding quality. One of the leading up-country merchants, dealing with all kinds of raw silk, bears testimony to the comparative merits of Jammu raw silk in the following words:—

"Regularity of size—Your silk leads in the (this) respect. Japanese silk stands second in this respect. Your quality is neat and clean. The climatic effect renders your silk moist and mild. This is but a natural help to you. Kashmir silk is still better in this regard. Your silk is reduced to 28 to 30 per cent. while foreign silks reduce only from 20 to 25 per cent. when bleached. The cloth prepared from your products is no doubt bright and clean but it lacks tightness as generally found in preparation of foreign silks."

By common consent, our raw silk is considered to be superior to all kinds of filature reeled raw silk as imported from China. We should easily be able to fetch 8 to 12 annas per pound more for our raw silk if there were no preference on the part of the Indian consumer in general for cheap goods.

In this connection it may be mentioned that, in the Mysore Dussehra Exhibition of 1936, the highest award, namely, Gold Medal, open, on competitive system, to the Exhibitors of Sericultural products was awarded to our Jammu Department.

58. The fluctuations in exchange undoubtedly constitute one of the main factors which affect the prices of foreign silks in India and have an upsetting effect upon the silk trade in general. As an instance, we will take the latest depreciation of Chinese currency and see the ruinous effect it has had upon our business. Since March last, the rate of exchange, Shanghai on Calcutta, has dropped from Rs. 79 to Rs. 58 (up to 13th June) per hundred dollars. During the same period the price of Canton Steam Filature has fallen from Rs. 5-8 to Rs. 3-15-6. This is one of the main reasons which has led to serious decline in the price of our raw silks. The rate in March having been somewhere in the neighbourhood of Rs. 6 has now dropped down to below Rs. 5 which is much less than our actual cost.

59. This does not concern us.

60. We do not import any silk waste, hence the question does not arise in our case.

61. The outturn of silk and silk wastes (Sarnakh and Gudar, etc., excluding Basin Refuse) for the year 1936-37 is 38,733 lbs. and 17,542 lbs. respectively in case of Jammu and 165,909 lbs. and 60,218 lbs. respectively in case of Kashmir.

The proportion of silk waste to a pound of raw silk reeled therefore works out as .45 and .36 in case of Jammu and Kashmir respectively.

62. The prices at present obtained for our silk waste have been given in answer to question No. 27 above.

63. This does not concern us.

64. No spinning plant has been installed in this State. The other part of the question therefore does not arise in our case.

65. So far as our knowledge goes, the whole machinery required for a filature, with the exception of Jette-Bout, Machine Brushes and Electric

Motors, can be manufactured in India. We have had no practical experience of comparing the price at a specified time of locally manufactured machinery with exactly similar machinery imported from foreign countries.

66. We are at present exporting silk wastes of superior grades such as Sarnakh and Gudar to foreign countries.

The Pierced Cocoons and Basin Refuse are finding ready sale in India where the stuff is used for the manufacture of Matka silk.

Cocoon Fluff is also sold in India.

Export trade of silk waste can be revived or developed by improving the quality of such wastes. This in itself depends upon the improvement of methods employed for reeling the indigenous silk.

The export trade of silk wastes, however, is not necessary if there are Silk Spinning Mills in the country to utilize the indigenous outturn of silk wastes.

67. This does not concern the State Sericulture Departments because they do not manufacture silk fabrics. The amount of raw silk produced in the State Factories which is sold locally is used by the local weavers in making cloth for sarees, chaddars, shirting and suiting, mainly for export down-country.

68. The present classification of imported raw silk for customs purposes marks undoubtedly a great improvement upon that which was in force before 1934. The tariff valuation, however, which continues, in spite of the clear recommendation of the Tariff Board for its entire abolition, leaves much to be desired. For example, according to this valuation, all filature reeled silks imported from foreign countries are valued at a certain average rate. There are many varieties of such silks, some being of high quality and some of low quality, which directly compare with corresponding high and low qualities of indigenous silks. The valuation of all foreign silks at a fixed average rate obviously results in over-protection in case of some and under-protection in case of other indigenous silks. This invidious distinction could easily have been avoided and the indigenous silk industry on the whole greatly benefited if the recommendation of the last Tariff Board for the entire abolition of the Tariff valuation had been accepted and *ad valorem* part of the duties was, as recommended by the Board, assessed on the correct invoice value.

69. (a) The amount of protection necessary for the Sericultural Industry entirely depends upon what the Board considers to be fair selling price for the indigenous silk, hand reeled as well as filature reeled, with due regard to the quality required and produced and the economic conditions of the country.

The Tariff Board in 1933 regarded Rs. 6-10-9 a pound as fair selling price for the Indian filature silk. This rate was too low so far as high class silk, such as that produced in Kashmir, is concerned. This was pointed out to the Government of India at that time.

The last Tariff Board, as a result of its exhaustive inquiries, had also come to the conclusion—and very rightly—that the future of the silk industry in this country depends upon the establishment of more and more filatures. At this rate, one would have thought that special care would be taken to see that protection in regard to filature reeled silk at least would be adequate enough to make it effective. Yet—the irony of it—it was exactly in this case that the protection granted was more inadequate than in case of other silks.

In view, however, of the fact that the Tariff Board based its conclusions on their study of conditions in India as a whole, we may accept its recommendation as a judicious award which warrants no revision and leaves no room for special treatment for any particular quality of silk, even though such treatment may otherwise be fully justified, as it is, we believe, in case of our raw silk, on its merits.

The protection granted in 1934 was expected to enable the indigenous industry to overhaul its costs by reducing expenditure and increasing efficiency. To a large extent the industry in this State has succeeded in achieving the object as is evidenced by the facts and figures mentioned above. At the same time, however, new forces have come into play which the last Tariff Board never reckoned with and consequently never provided for. The general labour awakening and the political consciousness of the agrarian masses are cases in point. Neither the labourers of the factory nor the farmers in the Mofussil who rear the worms are now satisfied with the wages or remuneration paid to them which they have come to regard as below what is necessary to ensure an adequate standard of living. Their demand for higher wage and better remuneration is getting more clamant every day. The result is that what is gained by the industry on one hand by retrenchment of expenditure and improved efficiency is lost on the other by increased cost of labour and increased price paid for cocoons. Taking the effect of retrenchment in expenditure and improved efficiency to neutralize the effect of higher labour costs we may regard the fair selling price as fixed by the Tariff Board in 1933 as still holding the field.

The measure of protection needed therefore is the difference between this price and the c.i.f. price of imported filature reeled silk.

(b) The protection required may be granted in the form of both *ad valorem* and specific duties. The *ad valorem* part of the duty may continue as before, i.e., 25 per cent. The amount of specific duty, however, should not be fixed at a particular rate but should be determined in case of each quality of imported raw silk by the actual difference between the fair selling price on one hand and correct c.i.f. price plus 25 per cent. *ad valorem* duty on the other. This, in our opinion, would be the most equitable arrangement in regard to all qualities of raw silk.

The proposal resolves itself into the following simple formula:—

Fair selling price—Invoice value plus 25 per cent. *ad valorem* duty plus specific duty.

Amount of specific duty—Fair selling price minus (invoice value plus 25 per cent. *ad valorem*), or

Amount of specific duty—Fair selling price minus invoice value minus 25 per cent. *ad valorem*.

To make the point perfectly clear, we will take two cases, one of Canton Steam Filature and the other of Japan filature silk, both of which compete with Indian filature reeled silk. If the c.i.f. price of Canton and Japan filature silk is Rs. 3-8 and Rs. 4 respectively, the duty leviable on Canton would be As. 14 (*ad valorem* part) plus Rs. 2-4-9 (specific part), total Rs. 3-2-9 which, added to c.i.f. price of Rs. 3-8 gives Rs. 6-10-9 which is the fair selling price in India for filature reeled silk. In case of Japan filature it would be Re. 1 (*ad valorem*) plus Rs. 1-10-9 (specific part), total Rs. 2-10-9, which, added to c.i.f. price of Rs. 4 gives Rs. 6-10-9 which again is the fair selling price in India for filature reeled silk.

Similar arrangement will work in case of hand reeled silk with different fair selling price fixed for it by the Board.

The duty proposed in this form will have the advantage of safeguarding the indigenous industry against further decline, due to depreciation of foreign exchanges or any other cause, in the price of imported raw silk.

It will further automatically safeguard against over-protection to the Sericultural Industry in case there is an appreciable rise in prices. For instance, if the price of Japanese silk rises to Rs. 6 per pound, the duty leviable in that case would be *ad valorem* Rs. 1-8 plus specific only As. 2-9. If the price rises above Rs. 6, there will be only the revenue duty of 25 per cent.

to be levied. The interests of the handloom weaver and the consumer would also be fully safeguarded in this way.

It will also not involve any discrimination against any particular foreign country.

The *ad valorem* duty has been retained in this proposal at the rate of only 25 per cent. because this is the rate of revenue duty which has been in force for a long time past. In case, as a result of protection granted, there is a fall in imports of raw silk, the levying of a specific duty in addition to 25 per cent. *ad valorem* should to a considerable extent make good the loss of revenue to the Government of India on account of diminished imports. The financial interests of the Government of India are also thus secured.

It is rather difficult to understand why Tariff valuation in case of raw silk should not be abolished altogether. There is no administrative difficulty involved in assessing the *ad valorem* duty on the invoice value, as, in fact, it is done in the case of hundreds of other commodities. Nor need there be any risk of undesirable practices developing in regard to manipulation of invoice values and assessment of duty. As against one item in the Indian Customs Tariff whose value is fixed, as in the case of raw silk, there are perhaps ten items in which case no such valuation is fixed. If the question of undesirable practices mentioned above does not arise in other cases why should it arise in the case of raw silk which after all deserves special treatment at the hands of the Government?

Apart from this, the scheme, outlined above, is the only method of effectively safeguarding against all such apprehensions even if there be any reality about them.

(c) The period of protection, as submitted at the time of inquiry by the last Tariff Board, should not be less than 15 years in the case of the Sericultural Industry. It takes one or two years for the protection to make itself felt. Then, in a country like ours where univoltine races of silkworm are reared, mulberry trees have to be planted which take 8 to 10 years to grow to a size when they can be used for rearing purposes. Besides, it takes time to establish the filatures for producing raw silk. It is only after the stock of mulberry leaf has been built up by fresh plantations and filatures have been established for reeling more raw silk that the industry can show substantial progress as a result of the protection granted.

This does not mean that there need be no fresh inquiry by the Tariff Board after every 5 years. Such inquiry will always be welcome for taking stock of the situation with a view to see how the industry is fairing under the scheme of protection granted and to decide if a revision of the fair selling price is not called for.

70. We have nothing to add to what the last Tariff Board has observed in this connection. To ensure that the protection granted to Sericultural Industry is effective, duties on the same lines as those recommended in the last Tariff Board's Report on all silk yarns, artificial silk, and spun silk, also on silk and artificial silk manufactures, including the mixtures, shall have to be levied. There must be some sort of correspondence, such as that recommended by the last Board, between the enhanced duty on raw silk and enhanced duty on other silk yarns and manufactures. This is the only way to avoid unnecessary hardship to those interested in allied industries. If the enhancement of duty in respect of any allied industry is inadequate it is bound to affect adversely the interests of the primary industry which formed the subject of inquiry or defeat the very object of the protection. Insufficient duty on artificial silk, when the protection was granted to Sericultural Industry, is a case in point. The remarkable increase that has taken place in the imports of artificial silk yarn and the deleterious effect it has had on the raw silk industry of the country is obvious and needs no comment. The fact of the matter is that the

Board has to see whether there is or there is not a case for protection to the Sericultural Industry. Once the answer to this question is in the affirmative, the course to be followed is clear, the action proposed should be adequate and effective.

No half measures will do.

71. This does not concern the State Sericulture Department as they do not produce any thrown silk or silk piecegoods.

72. The protection granted in 1934 has just enabled us to reduce the magnitude of our losses. The following table shows the heavy deficits suffered by the Department during the last few years in spite of the protection.

Year.	Jammu.*		Kashmir.†	
	Profit.	Loss.	Profit.	Loss.
	Rs.	Rs.	Rs.	Rs.
1930-31 . . .	...	73,714	...	2,55,277
1931-32 . . .	...	89,670	920	...
1932-33 . . .	...	69,447	...	6,42,698
1933-34 . . .	...	1,14,906	...	3,04,938
1934-35 . . .	...	34,433	...	95,661
1935-36 . . .	2,156	...	...	83,673
1936-37 . . .	26,508	...	1,05,032	...

The figures tell their own tale.

The state of affairs would not have been so bad if even the recommendations made by the Tariff Board in 1933, inadequate as they were in themselves, had been accepted in toto, and not whittled down as they were by the Government of India. With due regard to all the circumstances of the case, the measure of protection needed is as suggested in answer to question No. 69 above. That represents the minimum assistance called for by the condition of the industry.

73. The Sericultural industry owes its origin to royal initiative. It has thriven everywhere only with Government patronage and assistance. The bounties given to silkworm rearers and raw silk reellers in France, Italy, China and Japan are there to bear testimony to the fact. Even in our own State, if the Government were not actively interesting itself in the well-being of the industry, the industry would never have been established, as it is, on modern lines, and, if established, would, in the face of heavy losses indicated above, have died out long ago.

As has been seen from the data supplied in the foregoing pages, the Government is not sparing any effort to improve the technical methods employed in silkworm rearing and silk reeling.

It is through Government control that the supply of 100 per cent. disease-free seed is guaranteed to the rearers.

* Charges on account of Interest on Capital and price of leaf supplied free from Government lands not debited.

† The figures for the last 4 years are based on provisional Balance Sheets.

Attempts are being made to introduce elementary knowledge of Sericulture into the curriculum of the Primary Schools of the State. Pamphlets in vernacular dealing with scientific methods of mulberry cultivation and silkworm rearing have been printed and widely circulated among the zamindars.

As a substitute for conditioning house tests, which are not available in India for want of conditioning houses, elaborate tests are being held by the Department in respect of all aspects of the quality of raw silk, with the result that we can claim to produce the best quality of raw silk in India, a quality which can bear comparison with the "Classical" of Italy or "Petit extra" of France.

The whole industry being run by a department of the State complete statistics of production and consumption are maintained on up-to-date lines.

This covers the points dealt with in paragraphs 200 to 206 of the Tariff Board Report of 1933.

74. If adequate protection for a sufficiently long time is forthcoming it will certainly be possible to reduce substantially the cost of production in this State. It is difficult to specify the amount of reduction which can be secured but the reduction effected during the last few years can serve as an index to indicate the extent to which further reduction, if circumstances are favourable, can be effected. Indeed the pace at which the said reduction can be effected will be accelerated if we are in a position to increase the scale of operations. A statement showing the reduction possible in Jammu on the basis of various scales of operation, not involving very large extension over the present scale, is given below:—

	Scale of Rearing.				
	6000 OZS.	7000 OZS.	8000 OZS.	9000 OZS.	10000 OZS.
	Rs. a.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Cost of production of silk per pound without debiting Interest on Capital and cost of leaf supplied free from Government lands.	4 11	4 7 5	4 5 4	4 3 6	4 1 3

The above figures just illustrate the possibilities of reduction of costs in case we are in a position to work the Jammu Factory to its maximum capacity and conduct silkworm rearing on a scale which would enable us to utilize the whole stock of leaf available in that Province for feeding silkworms. The major part of this leaf is at present going waste because, owing to the unfair competition of foreign raw silk in the market, we are compelled not only not to extend our operations but even to curtail our existing production.

The particular items of cost in which reduction can be effected are the labour charges and overhead expenses. In these items as well as in other items of cost, substantial improvement can be effected both by increasing the average outturn of cocoons and raw silk per unit of silkworm seed and cocoons respectively and by improving the quality of cocoons and raw silk.

Enclosure.

Copy of the relevant extracts from the replies given to the questionnaire issued by the Tariff Board in 1933 regarding the Sericultural Industry which have been referred to in our replies to the questionnaire issued by the Board this year (1938).

Reference questionnaire 1938.	Reference questionnaire 1933.	Answer.
Q. No.	Q. No.	
1	1	Silkworm rearing in the Province of Kashmir is being carried on, at present, in the Valley, in Tehsils Anantnag, Kulgam, Awantipura, Sri Pratapsinghpura, Khas, Baramulla, Uthar-machhipura and Uri. The Industry of Silk Reeling in the Province of Kashmir is confined to Srinagar, where also the subsidiary Industry of Seed Production is being conducted. In the Province of Jammu Silkworm Rearing was begun in Tehsil Bhimbar (Nowshera) in the year 1905, since when it has been gradually extended to cover practically the whole of the Province, comprising Tehsils Jammu, Rambirsinghpuri, Akhaur, Udhampur, Basohli, Kathua, Hiranagar, Ramnagar, Ramban, Kishtwar, Riasi, Rajouri, Bhimbar, Mirpur, Kotli and Badawah. The industry of reeling in the Province of Jammu is localised at Jammu proper where it was begun experimentally in the year 1908.
2	2	Reply to this question is contained in letter No. 132-Sr., dated the 4th January, 1933, under point 2 which may please be referred to.

Extract from letter No. 132-Sr., dated the 4th January, 1933.

- (2) The industry is a monopoly of the State from the production of silkworm seed to the marketing of raw silk and its by-products. The State exercises its control, industrially and commercially, through the Department of Sericulture, which is highly specialized and which combines all activities connected with the industry, namely, mulberry cultivation and administration of Mulberry Rules, production of silkworm seed, rearing of silkworms through zamindars, reeling of raw silk in filatures and disposal of final products.

The management consists of a Director of Sericulture who is responsible for the working of the Department with regard to both production and sale.

The Director is assisted by three Deputies, one in charge of Sericulture in Jammu Province, one in charge

Deference
questionnaire
1938.

Reference
questionnaire
1933.

Answer.

Q. No.

Q. No.

of Reeling Branch in Kashmir Province and one in charge of Mulberry Culture and Rearing in Kashmir Province.

The Deputies in turn are assisted by Assistants, one in Jammu and 5 in Kashmir, with their respective subordinate staff.

All operations are entirely financed by the State.

• • • • •
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• • • • •

Sales are arranged in India as well as in Europe through recognized Agents appointed for the purpose. We have at present two Agencies for India and three for Europe. Of those in Europe the principal ones are in London and Milan.

In India the Agents merely negotiate sales for ready goods or silk to reel, according to terms acceptable to the Director, and the goods pass direct from the Department to the customer through an approved Bank. But in case of European business goods have in the first instance to be consigned to the Agents for sale. The Agents have however to obtain previous approval of the Director to rates at which sales are possible.

4

4

The figures given below against some of the typical varieties of cocoons stand for the quantity of live cocoons required to produce a pound of raw silk. It is not within our knowledge that any filatures in India have closed down for want of an adequate supply of Indian cocoons:—

White Chinese	9.33
Yellow Chinese	9.12
Golden yellow	9.17
Cevennes	11.10
Pyrennes	9.63
Var	9.82
Akabiki	13.11
Brianza	9.93
Fossombroni	10.25
Abruzzo	8.51
Gransasso	9.35
Majella	10.25

5 to 7

5

The kinds of silkworms reared are usually those mentioned in the table given in connection with Question 6 (B).

Reference
questionnaire
1938.

Reference
questionnaire
1933.

Answer.

Q. No.

Q. No.

...

6

(a) In Kashmir and Jammu the houses generally utilized for rearing purposes are, as in the case of French, Italian, Greek and Jugoslavian Rearings, the ordinary dwelling houses of the zamindars, which serve the purpose well. The dwelling houses in Kashmir are usually two-storied with sloping roofs. Those in the Province of Jammu are generally single storied and flat-roofed. The cost of constructing these houses averages Rs. 150 in Kashmir and Rs. 115 in Jammu.

As for equipment necessary for the rearing of the silkworm in the State necessary disinfectants and vermicides are supplied free by the Department. The zamindar finds, without any special expenditure to himself, trays for spreading out the seed for incubation and wooden posts for making shelves and trays. It may be mentioned here in this connection that "Silkworm Rearing depends chiefly on manual labour with little chance for application of machinery" (Honda's Silk Industry of Japan).

(b) The data asked for is given below in regard to the races which are usually reared here:—

Variety.	No. of days of education (elevage).	No. of cocoons per kilogram.	Length of filament in meters.	Denier.
Cevennes (France)	35	536	750	2.36
Pyrennes (France)	35	520	750	2.46
Var (France)	36	525	720	2.25
Brienza (Italy)	34	492	899	3.16
Maialla (Italy)	33	532	900	2.65
Ascoli (Italy)	34	480	718	2.41
Gran Sasso (Italy)	37	338	1000	3.00/2.34
Abruzzo (Italy)	34	430	1000	2.40
Bagdad white	42	380	770	2.87
Chinese white	32	855	530	2.25
Chinese (Golden yellow) . . .	31	612	722	2.64
Chinese (Cross yellow) . . .	33	602	743	2.57

Reference questionnaire 1938.	Reference questionnaire 1933.	Answer.
Q. No.	Q. No.	
9 & 13	8	<p>The production of seed is organized separately from the production of cocoons. In the first place the seed employed is of superior quality. In the second place incubation of the seed is done entirely on scientific lines by the Department itself. In the third place the area for rearings of reproduction is a selected one. In the fourth place every rearing house in the said area is thoroughly disinfected departmentally, by staff trained for the purpose, with sulphur and copper sulphate. In the fifth place unlike other areas, every house rearing for seed production is inspected once a day by trained staff to keep in touch with the progress of rearing.</p> <p>Out of the cocoons thus raised the Seed Production Branch retains the healthy ones for producing seed. The doubtful and the defective ones are sent over to the factory for purposes of reeling.</p> <p>The cocoons retained for seed production are dealt with on modern lines and each mother moth is microscopically examined for purposes of rejecting seed tainted with Pebrine infection. In this manner only healthy seed is kept for use during the ensuing year.</p>
14	13	<p>It is not easy to isolate a particular factor that is inhibitive to the production of cocoons by silkworms. Roughly however 20 to 30 per cent. may be taken as an average figure.</p>
15 & 16	10	<p>The silkworm in the Provinces of Jammu and Kashmir is fed on the leaf of the mulberry tree. The majority of these trees have come to us as heritage of the past. Nowhere do these trees occupy any portion of land to the exclusion of other cultures or pasturage. They grow everywhere scattered in cultivated fields, in the beds of ravines, along the bank of streams and rivers and on hillsides. New plantations of the mulberry which are being made departmentally with the co-operation of the zamindars concerned are generally established along canal embankments, village roadsides but more particularly in blocks on village common lands.</p> <p>The mulberry in the Provinces of Jammu and Kashmir is protected by a set of Rules, whereunder the leaf thereof is earmarked for the silkworm. Every person undertaking rearing can, by right, gather, free of charge, as much leaf as he needs for his silkworms from trees owned either by the Government or by private persons, the only condition being that he does</p>

Reference
questionnaire
1938.Reference
questionnaire
1933.

Answer.

Q. No.

Q. No.

not remove from private lands leaf that is needed for a similar purpose by the owners of those lands.

Thus it will appear that in the peculiar conditions obtaining here, it is not practicable to give information on all points raised in the Questionnaire. The yield of leaf per tree, however, is about 80 lbs. in Kashmir and about 100 lbs. in Jammu Province, the average life of the tree in both the Provinces being about 100 years. The total quantity of leaf required for rearing 1 oz. of silkworm seed is roughly 2,000 lbs.

17

11

In the peculiar conditions obtaining here as explained hereinbefore under question No. 10, it is not practicable to reply to this question.

31

26

A filature of 100 basins constitutes a convenient unit for securing efficient production. If, however, one can work up to 200 basins results would be certainly better.

A filature of 200 basins equipped with modern machinery will need approximately capital of Rs. 3,50,000 to establish it.

34

29

The total strength of the labour employed in our filatures is 1,905 and 249 in case of Kashmir and Jammu factory respectively.

This consists largely of the following classes:—

	Kashmir.	Jammu.
(A) Reelers	860	90
(B) Cooks	400	46
(C) Knotters	210	7
(D) Muraniwallas	58	1
(E) Silk waste cleaners	119	Included in (B)
(F) Sorters	160	21
(G) Turners . . . .	...	77

Labour for each of the above classes has to be skilled, the degree of skill varying with the class of work, the most skilled being class (A) in case of both the factories and the least skilled being class (B) in case of Kashmir and class (G) in case of Jammu factory. Besides these there are 38 hands of semi-skilled labour in Kashmir.

As labour keeps passing in and out, therefore if and when vacancies have to be filled up, there is no difficulty in securing skilled hands.

Reference questionnaire 1938.	Reference questionnaire 1933.	Answer.
Q. No.	Q. No.	
		The time necessary for acquiring skill for work of class (A) is 12 months, for work of class (B) 3 months and for work of class (G) two weeks.
		* * *
35	30	(II) This is a matter of opinion, but it may be said that our labour here is decidedly not as efficient as the labour in advanced Sericultural countries. The difference in the relative efficiency of labour would be perhaps 25 to 30 per cent. on the side of defect. This difference manifests itself in the quality and yield of raw silk.
		(III) (a) & (c) Approved apprentices for all classes of factory work including reeling, knotting, cooking, etc., receive training from old hands skilled in their job, working off and on as their seconds.
		(b) Those interested in rearing acquire the necessary skill by observation and experience gained by working jointly with skilled hands of the same or neighbouring family units. These units receive guidance and technique from the trained hands who supervise rearing on behalf of the Department.
37	32	The present day cost under the heads (1) Buildings and (2) Plant and Machinery for erecting a factory having the same capacity as our Kashmir factory is estimated to be Rs. 6,40,000 and Rs. 6,00,000 respectively.
47	39	Local sales are as a rule made direct; other sales are made through Agents, as already described in detail in this office No. 132-S. R., dated the 4th January, 1933, under point 2.
49	Statement handed over in course of oral evidence.	Railway freight per pound of silk from Jammu (Tawi) to various silk markets in India.

Name of place.	Passenger Train.	Goods Train.
	As. P.	Pies.
Amritsar . . .	nearly 0 5	1½
Benares . . .	1 3½	8½
Surat . . .	1 9	10½

51	42	The different qualities of raw silk we produce are as follows:—
		(A) Province of Kashmir—
		Lotus.
		Iris.
		Tulip.

Reference questionnaire 1938.	Reference questionnaire 1933.
-------------------------------------	-------------------------------------

Answer.

Q. No.

Q. No.

(B) Province of Jammu—

Neel.

No. I.

No. II.

Lotus quality is produced from selected No. I cocoons reeled in new filatures which are equipped with the most modern machinery.

Iris quality is reeled from No. 2 cocoons in the said new filatures.

Tulip quality is reeled from No. 1 cocoons in old filatures equipped with machinery manufactured locally.

Saffron quality is reeled from No. 2 cocoons in the aforesaid old filatures.

Neel quality is reeled from the selected cocoons by the extra skilled labour on modern basins.

No. I quality is reeled from No. 1 cocoons on locally manufactured basins.

No. II quality is reeled from No. 2 cocoons on locally manufactured basins.

Thus it will appear that our grading of silk is not done *after silk has been reeled*, but in the manner described hereinbefore. The daily testing of the quality of all the brands mentioned above helps us to maintain standards which we aim at. Should any silk thus tested prove to be below our requirements, *which is very rare*, the silk found to be defective is relegated to one of the lower classes.

This method has so far been found to work well and we do not feel it necessary to make any change in it.

56

46

There is clear evidence of production of raw silk by sweated labour. There is strong suspicion of dumping but there are no incontrovertible data available to prove the latter.

(3) *Supplementary information and statements handed in at the time of Oral Evidence.*

- (a) *Extract from a letter No. 805-II., dated the 12th July, 1938, from the Inspector General, Customs and Excise, Srinagar, to the Secretary to Government, Development Department, Srinagar.*

Certain articles on which the rates of duty have been prescribed by this Government are on the Special Schedule of the State Customs Tariff. A

copy of this Schedule* is enclosed. The British Indian Tariff is adopted in respect of all other articles.

Figures of thrown silk and silk warps, artificial silk yarn and artificial silk manufactures and also of silk and artificial silk mixtures are not recorded separately in the trade returns of this Department. Consequently these figures are not available.

Figures of raw silk and silk manufactures imported into the State during the last ten years are given in the statement enclosed.

Statement showing figures of raw silk and silk manufactures imported into the State during the last ten years.

Year.	Silk Raw.		Silk Manufactured, European.		Silk Manufactured, Indian.	
	Quantity in Mds.	Value in Rs.	Quantity in Mds.	Value in Rs.	Quantity in Mds.	Value in Rs.
<u>1983-84</u> <u>1926-27</u>	125	39,436	83	49,761	239	1,26,635
<u>1984-85</u> <u>1927-28</u>	222	38,783	295	1,16,308	176	99,848
<u>1985-86</u> <u>1928-29</u>	124	38,398	799	3,51,570	109	68,685
<u>1986-87</u> <u>1929-30</u>	207	58,677	924	3,76,762	91	57,425
<u>1987-88</u> <u>1930-31</u>	413	96,979	1,596	5,05,843	215	78,925
<u>1988-89</u> <u>1931-32</u>	937	2,06,754	1,353	4,07,161	18	9,422
<u>1989-90</u> <u>1932-33</u>	342	50,437	1,209	3,58,779	28	8,473
<u>1990-91</u> <u>1933-34</u>	319	39,643	1,708	3,40,264	23	5,270
<u>1991-92</u> <u>1934-35</u>	591	55,552	1,238	2,08,667	29	8,559
<u>1992-93</u> <u>1935-36</u>	328	37,748	978	1,64,457	23	6,268

* Not printed.

(b) *Cost of Production of Silk-Worm Eggs during 1992, 1993 and 1994.*

	1992.	1993.	1994.
Salary and Establishment	18,538	17,023-7	19,836-14-0
Insurance Premium	468	468	468-0-0
Depreciation	3,345	3,345	3,345-0-0
Cost of Cocoons issued for seed production .	7,600	8,401	2,527-6-4
Electric Power Charges	210	223	223-0-0
Charges under Head Local Seed	5,059	3,300	5,189-7-0
Sweeping Charges . . . . .	..	312	312-0-0
Stationery	55	55	100-0-0
Fuel	20	20	20-0-0
Repairs	200	200	148-15-0
Contingencies . . . . .	..	..	269-4-0
Travelling Allowance . . . . .	..	..	100-0-0
Rewards . . . . .	..	1,039-8	..
TOTAL .	35,495	27,985	32,539-14-4
Quantity of seed produced in ounces of 30 Grams.	23,753 oz.	21,200 oz.	17,289 oz.
Therefore cost of production per ounce of seed (30 Grams).	1-7-10	1-10-11	1-14-1

(c) *Freight for luggage from Rawalpindi to our important Silk Markets (furnished by the Director of Sericulture, Jammu Province).*

Stations.	By Goods train.		By Passenger train.	
	Per Md.		Per Md.	
	Rs.	A. P.	Rs.	A.
1. Multan Cantonment .	1	8 9	3	8
2. Amritsar	0	15 4	2	12
3. Benares	4	0 0	8	2
4. Calcutta	5	5 11	11	8
5. Nagpur	5	1 0	9	12
6. Surat	4	12 3	9	2
7. Bombay	4	10 6	11	5
8. Madras	8	0 1	12	6
9. Bangaloro	7	12 3	12	6

(4) *Supplementary information and statement supplied by the Director of Sericulture, Kashmir, Srinagar.*

1. *Interest on working capital at 5 per cent.*—In case working capital necessary is estimated to be equal to one-fourth of the value of the years production the interest at 5 per cent. thereon will be as follows:—

	1992-93.			1993-94.		
Quantity of Silk Produced lbs.	224,215	0	0	lbs. 165,909	0	0
	Rs.	A.	P.	Rs.	A.	P.
Average sale rate per lb.	4	1	6	5	8	4
Value of Silk produced .	9,17,879	0	0	9,15,955	0	0
Add value of bye-products	50,452	0	0	55,120	0	0
Total .	9,68,331	0	0	9,71,075	0	0
¼th of the above .	2,42,082	0	0	2,42,768	0	0
Interest at 5 per cent. on above .	12,104	0	0	12,138	0	0
Interest per pound .	0	0	10-4	0	1	2

2. *Interest on fixed capital at 6 per cent.*

Year.	Capital as per B.S excluding value of land.	Value of land.	Total.	Rate of Interest.	Total Interest.	Silk Produced.	Interest Per lb.
		Rs.	Rs.		Rs.	Lbs.	Rs. a. p.
1990-91 .	29,14,483	2,00,000	31,14,483	6 %	1,86,869	218,555	0 13 8
1991-92 .	19,35,230	2,00,000	21,35,230	6 %	1,28,114	187,407	0 10 11
1992-93 .	14,21,916	2,00,000	16,21,916	6 %	97,315	224,215	0 6 11
1993-94 .	13,98,120	2,00,000	15,98,120	6 %	95,887	165,909	0 9 2-9

3. The detail of Rs. 4,91,021 shown under head price of cocoons in the statement showing the cost of production of cocoons per maund (Q. No. 23) is as follows:—

	Rs.
Price of Cocoons	4,86,639
Lamberdari	3,871
Other charges	511
Total	4,91,021

4. In view of the fact that the value of Buildings and Machinery is given in lump the details of depreciation incurred on each building cannot be given.

5. Out of the amount of Rs. 1,039 shown under head rewards in the statement showing the cost of production of cocoons per maund (Q. No. 23) Rs. 25 were paid to a lamberdar, who informed us about a case of illicit silk reeling and the balance to some rearers for raising Seed Production Cocoons during the year.

6. The figures given in reply to question No. 2 of the General Questionnaire represent the actual expenditure incurred during the period in question whereas those given in reply to questions Nos. 23 and 29 represent cost of production. Hence the difference.

7. A statement showing the cost of production of foreign seed cross and pure is enclosed. A statement giving detail of Rs. 1-14-1 which is the cost of Production of Local Seed in 1994 is also enclosed.

8. Five statements showing detail of expenditure under rearing referred to in question 3 are enclosed.

9. A statement showing quantity of different kinds of wastes produced in 1990-91, 1991-92, 1992-93 and 1993-94 is enclosed.

10. A statement showing the distribution of the expenditure incurred under head Reeling and in three different heads, i.e., Reeling, Baling and Miscellaneous is enclosed.

11. A statement showing the quantity of silk, Dopost and Inferior Silk produced from 1989-90 is enclosed.

12. The detail of Rs. 26,978 shown under head rearing and Local Seed in the statement showing cost of production of cocoons per maund (Q. No. 23) is given below:—

	Rs.
Rearing general	11,902
Local Seed	5,196
Sorting	9,880

13. The detail of Rs. 8,57,402 shown in reply to question No. 29 is given in the cost statement enclosed. It is clear that the amount includes reeling charges of Rs. 3,49,094 shown on page 21 and price of cocoons (Rs. 5,08,308) reeled during the year.

14. Information about the wages paid to the labour in foreign countries is not available in this office, nor do we know what the cost of throwing is.

15. A statement giving details of works cost of reeling one pound of silk under different heads from 1931-32 to 1936-37 is enclosed.

16. Had the factory worked for 250 days in 1936-37, the cost of production of silk would have come to Rs. 4-15-10 per pound as per statement enclosed.

17. Quantity cocoons received and consumed during the last 5 years is shown below:—

Year.	Cocoons received. Maunds.	Cocoons reeled. Maunds.
1932-33	31,913	38,181
1933-34	25,768	33,581
1934-35	31,577	29,947
1935-36	25,081	32,787
1936-37	29,947	25,229
Total .	144,286	159,415
Add stock on 16th October, 1932	23,851	...
Total .	173,137	...

From the above it is clear that the quantity of cocoons reeled does not exceed that which was in stock.

18. The detail of 1,607—the average daily number of labour engaged by us in 1936-37—shown in reply to question No. 1 is enclosed.

19. A statement showing wages paid to different classes of labour is enclosed.

20. Cost of planting one full height mulberry tree is As. 8 for the first year and As. 4 each year for five subsequent years.

21. Cost of planting full height mulberry trees in one acre of land is Rs. 55 during the first year and Rs. 27-8 each year for the next five years.

22. The total expenditure under head salary and establishment incurred during the year 1937-38 is Rs. 1,30,869-10-9.

23. Copies of the Balance Sheets of the last 4 years are enclosed. Copies of other Balance Sheets and Administration Reports will follow shortly.*

24. A statement showing leaf used by the Silk Worms at each age is enclosed.

Statement showing cost of Foreign Seed, Pure and Cross delivered our Factory.

Serial No.	Name Variety.	Quantity.	Value.	Value, Ozs.	Remarks.
		Ozs.	Rs.	Rs.	
1	Pure .	11,147	17,975	1 9 9 6	Delivered at the Factory.
2	Cross .	8,500	16,524	1 15 1 25	Ditto.

Statement showing cost of production of Silk-worm Eggs in Kashmir during the year 1924.

	Rs.	A.	P.
Salary and Establishment	19,836	14	0
Insurance Premium	468	0	0
Depreciation	3,345	0	0
Cost of Cocoons issued for seed production	2,527	6	4
Electric Power Charges	223	0	0
Charges under Head Local Seed	5,189	7	0
Sweeping Charges	312	0	0
Stationery	100	0	0
Fuel	20	0	0
Repairs	148	15	0
Contingencies	269	4	0
Travelling Allowance	100	0	0
Rewards	...		
Total	32,539	14	4

Quantity of seed produced in ounces of 30 Grams 17,289 ozs.

Therefore cost of production per ounce of seed (30 Grams) Rs. 1-14-1.

Statement showing cost of production per maund of cocoons and per pound of silk in Fashi Year 1989-90 (October, 1932 to October, 1933).

Name of Head.	Expenditure on Rearing.	Expenditure on Reeling.	Total Expenditure.
	Rs.	Rs.	Rs.
Salaries and Establishment	64,272	69,762	1,34,034
Travelling Allowance	5,879	88	5,967
Postage and Telegrams	157	608	765
Rearing and Local Seed	24,997	...	24,997
Price of seed	26,712	...	26,712
Price of cocoons	5,52,340	...	5,52,340
Reeling and Baling . . . . .	...	2,50,050	2,50,050
Repairs . . . . .	...	6,562	6,562
Fire Insurance	912	8,210	9,122
Fuel	1,491	45,894	47,385
Electric Power charges	171	7,537	7,708
Contingencies	14,614	4,627	19,241
Depreciation	14,417	43,251	57,668
Total	7,05,962	4,36,589	11,42,551
Quantity of cocoons produced		31,913 Mds.	
Cost of production per maund of cocoons		Rs. 22-1-11	
		Rs.	
Manufacturing charges on 213,021 lbs. of raw silk		4,36,589	
Add			
		Rs.	
Price of 29,134 maunds of cocoons (crop 1989) at Rs. 27-2-4		7,90,867	
Price of 5,047 maunds of cocoons (crop 1990) at Rs. 22-1-11		1,11,638	
		<u>9,02,505</u>	
		<u>Total</u>	<u>13,39,094</u>
		Rs. A. P.	
Cost of production per lb. of raw silk		6 4 7*	
*Value of cocoons per lb. of silk		4 3 9	
Manufacturing expenses of silk		2 0 10	
		<u>Total</u>	<u>6 4 7</u>

Statement showing cost of production per maund of cocoons and per pound of silk in Fasli Year 1990-91 (October, 1933 to October 1934).

Name of Head.	Expenditure on Rearing.	Expenditure on Reeling.	Total Expenditure.
	Rs.	Rs.	Rs.
Salaries and Establishment	58,250	72,392	1,30,651
Travelling Allowance	5,541	700	6,241
Postage and Telegrams	135	700	835
Price of Seed	41,486	...	41,486
Rearing and Local seed	22,783	...	22,783
Price of cocoons	3,29,993	...	3,29,993
Reeling and Baling . . . . .	...	2,02,172	2,02,172
Repairs	206	5,593	5,799
Fire Insurance	1,796	8,744	10,540
Fuel	938	37,900	38,838
Electric Power charges	65	7,351	7,416
Contingencies	9,140	5,660	14,800
Depreciation	13,584	40,754	54,338
Total	4,83,926	3,81,966	7,65,892

Quantity of cocoons produced 25,768 Mds.

Cost per maund of cocoons Rs. 18-12-6

Rs.

Manufacturing charges on 218,555 lbs. of raw silk 3,81,996

Add—

Rs.

Price of 26,196 maunds of cocoons (crop 1990) at Rs. 22-1-11 5,79,449

Price of 7,385 maunds of cocoons (crop 1991) at Rs. 18-12-6 1,38,700

7,18,149

Total 11,00,115

Rs. A. P.

Cost of production per lb. of raw silk 5 0 6*

*Value of cocoons per lb. of silk 3 4 6

Manufacturing expenses of silk 1 12 0

Total 5 0 6

Statement showing cost of production per maund of cocoons and per pound of silk in Fasli Year 1991-92 (October, 1934 to October, 1935).

Name of Head.	Expenditure on Rearing.		Expenditure on Reeling.		Total Expenditure.	
	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.
Salaries and Establishment .	38,408	10 6	62,642	15 3	1,01,051	9 9
Reeling and Baling . . .	...		1,68,289	15 1	1,68,289	15 1
Price of cocoons . . .	3,98,125	7 6	...		3,98,125	7 6
Price of seed from Europe .	54,279	4 9	...		54,279	4 9
Repairs	500	0 0	3,359	5 3	3,850	5 3
Contingencies including uniforms	1,000	0 0	2,433	2 3	3,433	2 3
Fuel	1,544	0 0	31,830	2 0	33,374	2 0
Rearing and Local Seed .	17,730	0 10	...		17,730	0 10
Postage and Telegrams . .	100	0 0	632	1 6	732	1 6
Electric Power charges . .	949	0 9	6,664	11 9	7,613	12 6
Travelling Allowance . . .	1,530	1 0	40	10 0	1,570	11 0
Fire Insurance	1,776	15 3	5,509	12 0	7,286	11 3
Stationery	210	0 0	310	0 0	520	0 0
Depreciation	13,009	0 0	39,025	0 0	52,034	0 0
Mulberry Culture Expenditure	38,053	0 0	...		38,053	0 0
Total	5,67,216	0 0	3,20,737	0 0	8,87,953	0 0

Quantity of cocoons produced 31,577 Mds.

Cost per maund of cocoons Rs. 17-15-4

Rs.
Manufacturing charges on 187,407 lbs. of raw silk 3,20,737

Add—
Rs.
Price of 19,384 maunds of cocoons (crop 1991) at Rs. 18-12-6 3,64,055
Price of 10,253 maunds of cocoons (crop 1992) at Rs. 17-15-4 1,84,127
5,48,182
Total 8,68,919

Rs. A. P.
Cost of production per lb. of raw silk 4 10 2*

* Value of cocoons per lb. of silk 2 14 10
Manufacturing expenses of silk 1 11 4

Total 4 10 2

Statement showing cost of production per maund of cocoons and per pound of silk in Fasli Year 1992-93 (October, 1915 to October, 1916).

Name of Head.	Expenditure on Rearing.	Expenditure on Reeling.	Total Expenditure.
	Rs.	Rs.	Rs.
Reeling . . . . .	...	1,95,263	1,95,263
Repairs	1,769	5,226	6,995
Rearing and Local seed	22,758	...	22,758
Contingencies	8,000	3,853	11,853
Establishment	47,406	56,980	1,04,386
Electric Power charges	934	6,188	7,122
Fuel	520	32,800	33,320
Fire Insurance	1,993	3,152	5,145
Price of cocoons	3,30,317	...	3,30,317
Price of seed from Europe	41,523	...	41,523
Postage and Telegrams	173	518	691
Salaries	14,033	18,137	32,170
Printing and Stationery	149	366	515
Travelling Allowance	6,816	...	6,816
Uniforms	13	39	52
Rewards	1,039	...	1,039
Depreciation	11,308	33,924	45,232
Total	4,83,751	3,56,446	8,45,197

Quantity of cocoons produced 25,981 Mds.

Cost per maund of cocoons Rs. 18-13

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Rs.
Manufacturing charges on 224,215 lbs. of raw silk 3,56,446

Add—

Rs.
Price of 21,819 maunds of cocoons (crop
1992) at Rs. 17-15-4 3,91,833

Price of 10,968 maunds of cocoons (crop
1993) at Rs. 18-13 2,06,335

5,98,168

Total 9,54,614

Rs. A. P.
Cost of production per lb. of silk 4 4 1*

* Value of cocoons per lb. of silk 2 10 8

Manufacturing expenses of silk 1 9 5

Total 4 4 1

Statement showing cost of production per maund of cocoons and per pound of silk in Fasli Year 1993-94 (October, 1936 to October, 1937).

Name of Head.	Expenditure on Rearing.	Expenditure on Reeling.	Total. Expenditure.
	Rs.	Rs.	Rs.
Salaries and Establishment .	61,147	75,598	1,36,745
Repairs	193	9,215	9,408
Reeling . . . . .	...	1,87,897	1,87,897
Price of cocoons	4,91,021	...	4,91,021
Price of seed from Europe .	49,253	...	49,253
Contingencies including uniforms	12,222	3,175	15,397
Fuel	804	26,777	27,581
Rearing and Local seed .	26,978	...	26,978
Postage and Telegrams .	150	450	600
Electric Power charges .	761	6,346	7,107
Travelling Allowance .	1,612	4,926	6,568
Fire Insurance	1,912	3,067	4,979
Depreciation	9,865	29,597	39,462
Stationery	433	310	743
Pension contribution . .	578	1,736	2,314
Total .	6,56,959	3,49,094	10,06,053

Quantity of cocoons produced 29,947 Mds.

Cost of production per maund of cocoons . Rs. 21-15

Rs.
Manufacturing charges on production of 165,909 lbs. of raw silk 3,49,094

Add—

Rs.
Value of 14,449 maunds of cocoons (crop 1993) at Rs. 18-13 per maund 2,71,822
Value of 10,780 maunds of cocoons (crop 1994) at Rs. 21-15 per maund 2,36,486

5,08,308

Total . 8,57,402

	Rs.	A.	P.
Cost of production per lb. of silk	5	2	8*
*Value of cocoons per lb. of silk	3	1	0
Manufacturing expenses of silk	2	1	8
Total .	5	2	8

18

KASHMIR SERICULTURE DEPARTMENT.

Statement showing Silk-waste Produce.

Year.	1890-91.	1901-02.	1902-03.	1903-04.
Sarnakh . . .	65,277	52,917	50,770	21,650
Basin refuse . .	32,964	21,402	43,748	27,332
Nim gudder . .	28,924	20,622	32,226	13,530
Gudder . . .	7,720	6,107	5,904	4,620

Statement showing expenditure incurred under Head Reeling and Baling (as shown in the cost statements).

Year.	Labour.	Baling.	Miscellaneous.	Total.
	Ra.	Ra.	Ra.	Ra.
1900-01 . . .	1,92,751	4,175	5,246	2,02,172
1901-02 . . .	1,57,225	8,575	2,489	1,68,289
1902-03 . . .	1,79,857	8,284	7,122	1,95,263
1903-04 . . .	1,75,037	7,753	5,107	1,87,897

Statement showing silk and dopost reeled.

Year.	Silk.	Dopost.	Other inferior silk.	Total.
1900-01 . . .	212,009	986	28	213,021
1901-02 . . .	213,884	4,935	38	218,857
1902-03 . . .	163,604	18,984	4,819	187,407
1903-04 . . .	216,182	...	8,033	224,215
1904-05 . . .	160,211	5,698	...	165,909

Statement showing Works expenditure incurred on reeling Silk.

Year.	Quantity of silk reeled.	Total Works expenditure on reeling.	Cost of Cocoons.	Cost of reeling one pound.	Total.
	lbs.	Ra.	Ra. A. P.	Ra. A. P.	Ra. A. P.
1931-32 .	199,634	4,18,334	4 6 6	2 1 6	6 8 0
1932-33 .	213,021	4,36,589	4 3 9	2 0 10	6 4 7
1933-34 .	218,555	3,81,966	3 4 6	1 12 0	5 0 6
1934-35 .	187,407	3,20,737	2 14 10	1 11 4	4 10 2
1935-36 .	224,215	3,56,446	2 10 8	1 9 5	4 4 1
1936-37 .	165,909	3,49,094	3 1 0	2 1 8	5 2 8

Detail of works cost of reeling one pound under different heads.

Name of Head.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
1. Cost of Cocoons.	4 6 6	4 3 9	3 4 6	2 14 10	2 10 8	3 1 0
2. Cost of Labour	1 3 2	1 2 8	0 14 10	0 14 4	0 13 11	1 2 1
3. Cost of Power, Light and fuel.	0 4 4	0 4 0	0 3 4	0 3 4	0 2 9	0 3 2
4. Cost of Supervision and Management.	0 5 5	0 5 4	0 5 4	0 5 4	0 5 4	0 7 6
5. Cost of repairs and maintenance.	0 4 3	0 3 9	0 3 5	0 3 7	0 2 10	0 3 9
6. Other expenses	0 0 4	0 1 0	0 1 1	0 0 9	0 0 7	0 1 2
Total	6 8 0	6 4 7	5 0 8	4 10 9	4 4 1	5 2 8

Cost of production per pound of silk had the Factory worked for 250 days in 1994-94 (1936-37).

	Expenditure on Reeling.	Expenditure on Reeling.	Total Expenditure.
	Rs.	Rs.	Rs.
Salaries and Establishment	61,147	75,598	1,36,745
" " "	193	9,215	9,408
Reeling and Baling	...	2,82,977	2,82,977
Price of Cocoons	4,91,021	...	4,91,021
Price for Seed from Europe	49,253	...	49,253
Contingencies	12,222	3,175	15,397
Fuel	804	39,522	40,326
Rearing and Local Seed	26,978	...	26,978
Postage and Telegrams	150	450	600
Electric Power Charges	761	8,796	9,557
Travelling Allowance	1,642	4,926	6,568
Fire Insurance	1,912	3,067	4,979
Depreciation	9,865	29,597	39,462
Stationery	433	310	743
Pension Contribution	578	1,736	2,314
Total	6,56,959	4,59,369	11,16,328

	Rs.
Manufacturing charges on production of 249,863 lbs. of silk	4,59,369

Rs.

Value of 38,000 maunds of cocoons--

14,449 maunds at Rs. 18-13 per maund	2,71,822
23,551 maunds at Rs. 21-15 per maund	5,16,650
	<u>7,88,472</u>

Grand Total 12,47,841

Cost of production of per pound of silk Rs. 4-15-10

Detail of average daily Labour of the Kashmir Sericulture Department for the year 1936-37.

	Average labour daily engaged.
1. Filature No. 1	339
2. „ „ 2	341
3. „ „ 3	3
4. „ „ 4	87
5. „ „ 5	397
6. Sorting Section	159
7. Seed House	49
8. Boiler Section	13
9. Silk Stores	10
10. Press	3
11. Workshop Section	3
12. Miscellaneous	3
Total	<u>1,607</u>

Statement showing wages paid to the factory labour.

	Filature 1 and 2.	Filature 4 and 5.
	Rs. A. P.	Rs. A.
1. Spinners	1 0 0	0 10
2. Knotters	0 8 6	0 6
3. Murani Walla	0 10 0	0 10
4. Press Operators	0 10 0	0 10
5. Turnallo Operators	0 10 0	0 10
6. Cooks	0 7 0	0 6
7. Waste Cleaners	0 7 0	0 6
8. Brush Repairers	0 7 0	...
9. Machinery Attendants	1 0 0	1 0
10. Assistant	0 12 0	0 12

Item Nos. 1 to 10 are paid less by 10 per cent.

23. The quantity of leaf used by the silk-worm at its different ages is given below:—

				Lbs. of leaf.
First Age	.	.	Five days	4
Second Age	.	.	Four days	13
Third Age	.	.	Six days	45
Fourth Age	.	.	Seven days	120
Fifth Age	.	.	Ten days	700

The quantity of leaf given here is what the worm actually eats during its different ages. The quantity of leaf actually served, however, is more than double because of the Wastage and Weight of Stalks, etc.

19. Rendement of No. 1 Cross is 3.27.

Rendement of No. 1 Pure is 3.59.

Rendement of No. 2 Cross is 4.26.

Rendement of No. 2 Pure is 4.80.

(5) *Supplementary information asked for by the Indian Tariff Board in course of Oral Evidence at Simla, September, 1938 (furnished by the Director of Sericulture, Jammu).*

JAMMU SERICULTURE.

1. The detail of figures given in answer to question No. 1 is as follows:—

Year.	Rearing.					Reeling.		
	Rearers.	Girdawars or Temporary supervisors.	Lambardars.	Miscellaneous labour and Carriage Contractors.	Total.	Average daily attendance.		
						La- Fia- ture hour.	Ser- Cocoon tera.	Total.
1933-34	8,386	44	885	50	9,365	174.34	22.35	196.69
1934-35	5,583	6	804	50	6,443	175.36	22.36	197.72
1935-36	6,101	6	850	50	7,007	172.60	12.40	184.40
1936-37	6,933	6	857	50	7,846	183.30	15.60	201.90

Detail of the permanent staff, i.e., 117 hands has been shown from the printed Budget in course of the oral evidence.

2. The disparity in figures given in answer to question No. 2 and those arrived at through cost statements submitted in answer to question Nos. 23 and 29 is, as stated in course of the oral evidence, due to the fact that the former have been adopted from the annual Balance Sheets prepared and issued by the Accountant General of the State and the latter from our own departmental books. As desired the detail of various heads under which the differences occur between the figures of Balance Sheet and those of our books is given below for the last five years:—

1932-33.

	Rs.
Figure as per Balance Sheet	3,04,995
Figure as per Cost Statements	2,76,215
Difference	28,780

Detail of difference under various expenditure heads.

Name of Heads.	Balance Sheet.	Our Office Books.
	Rs.	Rs.
Salary	9,743	9,609
Establishment	26,071	26,002
Commission on Profits of years 1984-85/1927-28, 1935-86/ 1928-29 and arrear dues of previous years	13,817	...
Fire Insurance	1,324	1,281
Buildings Machinery	147	...
Price of Cocoons	1,59,670	1,59,061
Carriage of Silk	2,155	...
Reeling Baling	45,492	41,615
Fuel	7,968	7,665
Stationery	Nil.	200
Customs duty	5,471	3,789
Travelling Allowance and Contingencies	6,141	5,921
Price of seed	18,774	12,850
Total	2,96,773	2,67,993

Difference Rs. 28,780

1933-34.

	Rs.
Figure as per Balance Sheet	2,26,440
Figure as per Cost Statements	2,21,129
Difference	5,311

Detail of difference under various expenditure heads.

Name of Heads.	Balance Sheet.	Our Office Books.
	Rs.	Rs.
Establishment	27,771	27,663
Travelling Allowance	3,262	3,276
Contingencies	1,226	1,230
Reeling Baling	42,765	42,388
Carriage of Silk	2,254	...
Commission on Profits of years 1940-87/1929-30 and arrears dues of 1972, 1973 and 1977 (1916, 1917 and 1921)	1,016	...
Customs Duty	5,470	4,967
Refund	2	...
Repairs	1,269	...
Stationery . . . .	...	200
Total	85,035	79,724

Difference Rs. 5,311

1934-35.

	Rs.
Figure as per Balance Sheet	1,75,076
Figure as per Cost Statements	1,77,367
Difference	2,291

Detail of difference under various expenditure heads.

Name of Heads.	Balance Sheet.	Our Office Books.
	Rs.	Rs.
Establishment	27,698	27,706
Miscellaneous	2,984	1,658
Fire Insurance	968	977
Repairs	890	...
Carriage of Silk	1,980	...
Reeling Baling	33,100	37,407
Fuel	7,732	7,732
Commission to Silk Agents . . . .	...	947
Customs Duty	2,860	3,865
Stationery . . . .	...	165
Refund	48	...
Total	78,164	80,455

Difference Rs. 2,291

1935-36.

	Rs.
Figure as per Balance Sheet	1,93,635
Figure as per Cost Statements	1,94,963
	<hr/>
Difference	1,328

Detail of difference under various expenditure heads.

Name of Heads.	Balance Sheet.	Our Office Books.
	Rs.	Rs.
Establishment	28,507	28,409
Travelling Allowance . .	3,380	3,342
Miscellaneous	1,626	1,460
Postage and Telegrams . .	829	736
Purchase of Seed	10,501	14,617
Price of Cocoons	83,352	81,573
Repairs	289	...
Reeling Baling	35,018	35,989
Fire Insurance	735	1,079
Commission to Silk Agents .	3,235	3,207
Carriage of Silk	1,899	...
Customs Duty	4,163	4,178
Stationery . . . . .	...	272
	<hr/>	<hr/>
Total	1,73,534	1,74,862

Difference Rs. 1,328

1936-37.

	Rs.
Figure as per Balance Sheet	2,18,395
Figure as per Cost Statements	2,12,126
	<hr/>
Difference	6,269

Remarks.—The figure of Rs. 2,18,395 has been taken from the Preliminary Balance Sheet then in hand. The final Balance Sheet which was received afterwards showed the expenditure figure to stand at Rs. 2,17,829 (the difference being due to reduction in Pension Contribution amount, etc.).

The figure as per Cost Statements, i.e., Rs. 2,12,126 after adding the amount of Rs. 1,197 on account of Pension Contribution which has been omitted in the Cost Statement should stand at Rs. 2,13,323.

The nett difference of Rs. 4,506 as between Rs. 2,17,829 and Rs. 2,13,323 is due to the difference under various heads *vide* detail below:—

Name of Heads.	Balance Sheet.	Our Office Books.
	Rs.	Rs.
Salary	13,365	13,369
Travelling Allowance	7,422	7,262
Establishment	28,279	28,331
Price of Cocoons	96,124	93,506
Price of Seed	15,064	15,048
Postage and Telegrams	1,091	1,073
Repairs	276	...
Carriage of Silk	2,713	...
Customs Duty	4,605	4,637
Refund	5	...
Stationery . . . . .	...	228
Local Allowance	3	...
Reeling Baling	35,374	35,334
Contingencies	2,000	1,830
Pension Contribution	1,197	2,394
Total	2,07,518	2,03,012
Difference		Rs. 4,506

From the details supplied above it will be seen that there are certain items of expenditure, such as Commission paid on Profits and Repairs or Buildings and Machinery, included in the manufacturing expenses as shown in the Balance Sheets which could not be included in the Cost Statements and as such have properly been omitted. Even the Carriage of silk is not included in Cost Statements. The other differences between the figures supplied by the Accountant General and those obtaining in our books are mostly due to certain debits being raised by our Office in one year and by the Accountant General's Office in another year.

4. The results obtained in rearing and reeling from Cross Chinese and Bagdad White Seed during 1936-37 are given below:—

Rearing.

Kind of Seed.	Amount of seed reared in ounces.	Cocoons produced.		Average yield of cocoons per ounce of seed.	
		In Mds.	In lbs.	In Srs.	In lbs.
Cross Chinese	4,636½	4,678 34 8	383,666	40 6	82½
Bagdad White	1,493	2,017 39 5	165,475	54 1	110½
Mixed Seed	343½	334 38 4	27,467	39 0	80

Reeling.

	Amount of Cocoons reeled.		Amount of silk produced in lbs.	Rendita.
	In Mds.	In lbs.		
Cross Chinese	4,774 1 10	391,471	29,571 14 8	13.24 : 1
Bagdad White	1,813 21 3	148,709	9,165 12 8	16.22 : 1

While Bagdad Cocoons yield less silk in reeling, we get more cocoons from Bagdad Seed in Rearing. The loss in reeling on Bagdad Seed is made up and sometime more than made up by the gain in rearing. The extent to which Bagdad seed can advantageously replace Cross Chinese seed in this Province, however, depends upon several factors, the most important of which are the demand for White silk and availability of sufficient quantity of leaf in the rearing localities.

As for the yield of silk from Cross-breed cocoons compared with that from Pure European Yellow, the results obtained are given below for 1931-32 and 1932-33 which are the two last years when we have reeled yellow cocoons separately from Cross cocoons:—

Amount of Cocoons reeled in pounds (dry weight).		Amount of Silk reeled in pounds.		Rendita.	
Cross Chinese.	Pure Euro- pean yellow.	Cross Chinese.	Pure Euro- pean yellow.	Cross Chinese.	Pure Euro- pean yellow.
1931-32.					
80,439	19,248	18,177	4,699	4.42 : 1	4.1 : 1
1932-33.					
97,049	8,792	21,013	1,825	4.14 : 1	4.82 : 1

The under-signed was given to understand in Europe that the main object in rearing Cross-breeds between European Yellow and Chinese Golden is to combine the principal virtues of the two parent stocks and that the European Yellow being rich in silk yield and Chinese Golden giving better quality of silk, the Cross-breeds between the two are expected, theoretically at least, to give cocoons whose silk yield is inferior to that of European Yellow but superior to that of Chinese Golden and quality of silk superior to that of European Yellow but inferior to that of Chinese Golden. In practice, as will be seen from the above statement, we have found in this Province that sometimes European Yellow cocoons yield more silk, sometimes Cross Chinese.

9. The price of different qualities of silk-worm seed imported during 1936-37 and reared during the current year works out as per statement enclosed *vide* Appendix "A".

10. A copy of the Rules regarding unauthorised possession of cocoons, etc., which are in force in the State is enclosed herewith as desired *vide* Appendix "B".

23 & 29. First of all the following corrections may kindly be made—

- (1) *Cost of Cocoons Statement.*—For the year 1936-37 a column representing Pension Contribution which amounts to Rs. 1,197 has to be inserted between the columns "Depreciation charges" and "Total".
- (2) *Cost of Raw-silk Statement.*—(a) For the year 1934-35 under head "Fuel" kindly read 7,732 instead of 7,032. (b) For the year 1935-36 under head "Half Postage and Telegram charges" kindly read 368 instead of 168. (c) For the year 1936-37 a column representing Pension Contribution amounting to Rs. 1,197 has to be inserted between the columns "Contingencies, House-rent and Travelling Allowance" and "Total". The figure under head "Total" will thus be Rs. 68,296 instead of Rs. 67,099.

Necessary detail of the items of expenditure asked for is given below for the year 1936-37 :—

Cost of Cocoons.

Item.	Amount.	Details.	Amount.
	Rs.		Rs.
Price paid to rearers	93,506	Payment to rearers	87,825
		Commission to Lambardars	2,234
		Carriage of Cocoons from different Crop-receiving centres to Jammu	3,038
		Miscellaneous	409
Rearing requisites and temporary technical supervision	709	Wages paid to Girdawars	294
		Purchase of Drugs	230
		Carriage charges for drugs and seed to various centres of distribution and miscellaneous expenditure	185
Price of Silkworm Seed	15,048	Payments actually made during the year through Imperial Bank of India for supplies obtained from Europe	10,453
		Payment made for seed obtained from Persia	4,125
		Carriage and Forwarding charges of European Seed from Bombay to the Hibernation House at Batote and Persian seed from Jammu to Batote	470
Expenditure incurred on Mulberry Plantation	483	Includes maintenance charges of Mulberry Nurseries and Carriage of Plants, etc.	483
Contingencies and House-rent	448	Contingencies—Includes such charges as carriage of Tents and Records, Firewood for heating purposes, purchase of Lanterns and Kerosine oil and printing of Forms, etc.	388
		House-rent—paid for temporary storage of cocoons at Mofussil centres where crop is received	60
Half Establishment charges	13,335	Half Office Section	2,425
		Full Mulberry Section	10,910

Item.	Amount.	Details.	Amount.
	Rs.		Rs.
Customs Duty . . .	4,184	On Persian Seed . . .	1,031-4
		On European Seed . . .	3,086-5
		On miscellaneous articles ordered for rearing pur- poses . . .	66-12
Sorting and Baling charges	2,204	Cocoons Sorters . . .	1,767
		Baling Material . . .	207
		Miscellaneous . . .	230
Depreciation charges . .	2,067	The detail asked for separately for rearing and reeling is not available <i>vide</i> tele- graphic enquiry made from the Accountant General in this regard and his reply thereto copy enclosed as per Appendix "C" . . .	2,067

Cost of Raw Silk.

Reeling and Baling charges .	33,130	Filature Labour . . .	29,837
		Water charges . . .	1,361
		Electric charges . . .	1,309
		Baling Material and Mis- cellaneous . . .	623
Establishment charges .	14,996	Half Office Section . . .	2,425
		Full Filature Section . . .	12,571
Customs Duty . . .	453	On steam coal . . .	293
		On Miscellaneous articles required for reeling . . .	160
Depreciation charges . .	2,067	Same remarks as given in cost of cocoons statement above .	2,067
Contingencies, House-rent and Travelling Allowance .	291	Represent mostly sweeping and other miscellaneous charges . . .	291

Apart from the above we have been asked to work out costs on the lines followed in paragraphs 178 to 181 of the last Tariff Board Report. The costs have been worked out for the year 1936-37 as far as it was possible with the information available to us from our records. The same is given in the Statements enclosed *vide* Appendices "D" to "H".

24. By taking into consideration the extra payment made during the current year for the crop raised during the last year which actually amounts to Rs. 13,006 *plus* Rs. 390 (on account of Commission to Lambardars) the price of cocoons per lb works out nearly four annas seven and a half pies and not "about five annas" as stated in our replies to the general questionnaire.

27. Full details asked for of the sales of silk and silk waste during the year 1936-37 are given in the Statement enclosed *vide* Appendix "I".

35. The detail asked for of various classes of Labour engaged in our Factory and rates of wages paid during 1936-37 are given below:—

Kind of Labour.	No. of Labourers.	Average daily attendance.	Amount actually paid during the year after deduction of 12½ per cent. cut and fines, etc.	Rate of daily wages excluding 12½ per cent. cut.		Net daily wage per head paid for each class.
				Regular.	Irregular.	
<i>Filature Labour.</i>						
8 Skinners	15,447	55.2	Rs. a. p. 13,399 0 9	Rs. a. p. 1 0 0	Rs. a. p. 0 15 0	Rs. a. p. 0 13 10
7 do.	11,705	41.8	8,264 14 3	0 14 0	0 13 0	0 11 4
6 do.	529	1.9	313 4 9	0 12 0	0 11 0	0 9 6
Master Spinners	736	2.6	659 10 0	1 2 0	1 1 0	0 14 4
				&	&	
				1 0 0	0 15 0	
Muraniwalas	223	0.9	170 10 3	0 14 0	0 13 0	0 12 2
Knotters	1,989	7.9	731 9 6	0 7 0	0 6 0	0 5 11
Silk Cleaners	698	2.5	591 3 0	0 12 0	0 11 0	0 13 7
				&	&	
				1 0 0	0 15 0	
Cooks A Class	1,168	4.2	507 4 9	0 8 0	0 7 0	0 7 0
Cooks B Class	18,800	67.1	5,199 10 3	0 6 0	0 5 0	0 4 5
Total	..	..	29,837 3 6	..	..	..
<i>Cocoon Sorters.</i>						
Sorters A Class	2,914	10.8	1,248 0 9	0 8 0	0 7 0	0 6 10
Sorters B Class	1,978	7.8	519 0 0	0 6 0	0 5 0	0 4 2
Total	..	..	1,767 0 9	..	..	..

Information obtained through one of our friends in Europe regarding the rates of wages paid to similar labour in European countries is furnished herewith *vide* Appendix "J". The source of information is dependable.

40. On enquiry from certain important local manufacturers it has again been found that no "throwing" of silk is done in this Province, hence no costs can be worked out.

General.

1. Information regarding the procedure followed by our Customs Department in regard to Yarkandi silk meant for British India and the figures of Yarkandi silk imported through the State into British India and other matters regarding the levy of Customs duty in the State has been asked for from the concerned Departments and the same will be forwarded in due course.

2. The figures asked for of the monthly consumption of cocoons in the Factory for the last five years are given below:—

Serial No.	Name of month.	Cocoons consumed in Filatures.				
		1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
		Mds. srs. ch.	Mds. srs. ch.	Mds. srs. ch.	Mds. srs. ch.	Mds. srs. ch.
1	Katlk .	554 3 11½	417 7 1	642 16 3	689 34 12	489 26 10
2	Maghar.	581 8 12½	409 9 2	624 33 4	673 28 2	496 8 8
3	Poh .	479 22 15	355 6 5	442 0 1	496 14 4	474 8 8
4	Magh .	512 5 11	583 3 1	509 5 1	544 35 10	570 24 14
5	Phagan	533 14 15	678 4 7	637 1 4	547 16 1	559 22 9
6	Chet .	490 9 7	639 38 6	482 3 0	643 2 10	537 9 12
7	Baisakh	568 22 3	603 15 6	587 34 0	762 7 5	626 7 6
8	Jeth .	539 21 8	673 25 8	612 37 10	603 18 8	574 13 9
9	Har .	523 33 14	587 11 2	545 27 8	555 15 15	663 9 13
10	Sawan .	632 29 15	662 0 3	658 17 9	580 24 2	519 11 0
11	Bhadon	631 17 6	568 39 13	649 13 1	593 34 11	609 10 7
12	Assuj .	434 6 13	519 6 1	621 26 11	497 19 8	518 39 0
	Total .	6,480 37 3	6,697 6 7	7,013 15 4	7,188 11 8	6,638 32 0
	Pounds .	531,436	549,166	575,097	589,439	544,382

3. The figures asked for of Dopost Cocoons and Dopost silk and their percentage on the total crop of cocoons reeled and total silk produced for the last 5 years are given below:—

Year.	Dopost cocoons reeled.	Dopost silk produced.	Total crop of cocoons reeled.	Total silk produced.	Percentage of Dopost cocoons to total crop rd.	Percentage of Dopost silk to total silk reeled.
	Mds. srs.	lbs.	Mds. srs.	lbs.		
1932-33 . .	225 10	1,258 5	6,480 37	35,209	6.44	3.57
lbs. . .	18,470½		531,436			
1933-34 . .	348 13	1,722 2	6,697 6	35,413	5.20	4.86
lbs. . .	28,563		549,166			
1934-35 . .	293 35	1,887 6	7,013 15	42,153	4.17	4.42
lbs. . .	24,098		575,097			
1935-36 . .	106 18	742 14	7,189 11	41,511	1.48	1.78
lbs. . .	8,729		589,439			
1936-37 . .	242 13	1,548 8	6,638 32	38,737	3.65	3.99
lbs. . .	19,871		544,382			

4. Copies of Balance Sheets for the last ten years and Annual Administration Reports for the last five years are being sent herewith.

5. The figures of consumption of leaf per ounce of seed at various stages of silkworm rearing are given below:—

	Kilograms.	Pounds.
1st stage	3	6.6
2nd „	12	26.4
3rd „	65	143.0
4th „	220	484.0
5th „	900	1,980.0
Total	1,200	2,640.0

The above figures represent the consumption of leaf per ounce of seed in ideal conditions as worked out by Prof. G. Theodore for the Museum of Natural History in Milan.

6. Lastly, an enquiry was made as to whether the city of Srinagar does not derive its name from Ser, i.e., silk. The undersigned submitted that the belief commonly held in this respect was that the name was derived from *Sarya* or Sun. In support of this contention reference is invited to (a) Sir Francis Younghusband's book "Kashmir", Chapter III, page 63, and (b) Arthur Neve, F.R.C.S., I.R.C.P.'s book "Picturesque Kashmir", Chapter III, page 29, in both of which Srinagar is described as the "City of the Sun".

Sir Aurel Stein, however, does not favour this view. In this connection he remarks:—

- (a) "The feminine form Śrinagari is used also for the new capital. There is thus no difference in the name as applied to both Asoka's and Pravarasena's cities. Śrinagara or Śrinagari means the "City of Sri", i.e., of Lakshmi, the Goddess of Fortune." *Vide* footnote on page 140 of his "Memoir on the Ancient Geography of Kashmir".
- (b) "Mr. Vigno is responsible for the strange derivation of the name of the Kashmir capital Śrinagar (Śrinagara), or as he spells it 'Siri-Nagur', from 'Surya Nagur, the city of the Sun' Judging from the persistence with which the error has been copied by a succession of modern writers on Kashmir, this etymology bids fair to establish itself as a piece of orthodox creed with European visitors to the valley." *Vide* footnote on page 6 of his "Memoir on the Ancient Geography of Kashmir".

The undersigned has not been able to get any evidence in support of the view that the city derives its name from Ser or silk.

1



सत्यमेव जयते

APPENDIX "A".

Price f.o.r. Jammu of each quality of seed imported during 1936-37 (reared in 1937-38).

Serial No.	Name of Supplier.	Seed in ounces.	Rate per ounce c. i. f. Bombay.	Value in foreign money.	Value in Indian currency.	Customs duty.	Clearing and forwarding charges.	Total.	Rate per oz. f. o. r. Jammu.
			d.	£ s. d.	Rs.	Rs.	Rs.	Rs.	Rs. a. p.
		32 grs							
1	One Supplier from Europe.	500	37	82 4 5	1,000	301	32	1,423	2 13 6
2	2nd Supplier from Europe.	1,200	33	165 0 0	2,193	618	78	2,889	2 6 6
3	3rd Supplier from Europe.	250	27	30 0 0	400	114	17	531	2 2 0
4	4th Supplier from Europe.	250	36	37 8 0	515	145	19	679	2 11 5
5	One Supplier from Persia.	..	..	..	..	..	..	..	..

APPENDIX "A"—*contd.*Price f.o.r. Jammu of each quality of seed imported during 1936-37 (reared in 1937-38)—*contd.*

Serial No.	Name of Supplier.	Seed in ounces.	Rate per ounce c. i. f. Bombay.	Value in foreign money.	Value in Indian currency.	Customs duty.	Clearing and forwarding charges.	Total.	Rate per oz. f. o. r. Jammu.
		32 grs.	d.	£ s. d.	Rs.	Rs.	Rs.	Rs.	Rs. a. p.
1	One Supplier from Europe.	1,200	27	144 0 0	1,918	547	78	2,543	2 1 11
2	2nd Supplier from Europe.	1,200	33	165 0 0	2,193	618	78	2,869	2 6 6
3	3rd Supplier from Europe.	250	27	25 0 0	333	98	17	448	1 12 3
4	4th Supplier from Europe.	250	36	37 8 0	515	145	19	679	2 11 5
5	One Supplier from Persia.	..	—	..	..	..	..	..	..

APPENDIX "A"—*contd.*Price f.o.r. Jammu of each quality of seed imported during 1936-37 (reared in 1937-38)—*contd.*

Chinese White.									
Serial No.	Name of Supplier.	Seed in ounces.	Rate per ounce c. i. f. Bombay.	Value in foreign money.	Value in Indian currency.	Customs duty.	Clearing and forwarding charges.	Total.	Rate per oz. f. o. r. Jammu.
1	One Supplier from Europe.	32 gra. 100	d. 50 £ 22 4 5	Rs. 295	Rs. 80	Rs. 6	Rs. 381	3 13 0	..
2	2nd Supplier from Europe.	..	..	..	..	..	..	..	..
3	3rd Supplier from Europe.	..	..	..	..	..	..	..	..
4	4th Supplier from Europe.	..	..	..	..	..	..	..	..
5	One Supplier from Persia.	..	..	..	..	..	..	..	..

APPENDIX "A"—*contd.*Price f.o.r. Jammu of each quality of seed imported during 1936-37 (reared in 1937-38)—*contd.*

Serial No.	Name of Supplier.	Chinese Golden.						
		Seed in ounces.	Rate per ounce c. i. f. Bombay.	Value in foreign money.	Value in Indian currency.	Customs duty.	Clearing and forwarding charges.	Total.
			d.	£ s. d.	Rs.	Rs.	Rs.	Rs. a. p.
		32 grs.			Rs.			
1	One Supplier from Europe.	200	28	24 17 10	331	95	13	439 2 3 1
2	2nd Supplier from Europe.	100	33	13 15 0	183	51	6	240 2 6 5
3	3rd Supplier from Europe.	..	..	..	..	..	..	..
4	4th Supplier from Europe.	..	..	..	..	..	..	..
5	One Supplier from Persia.	..	..	..	..	..	..	..

APPENDIX "A"—*concl'd.*Price f.o.r. Jammu of each quality of seed imported during 1936-37 (reared in 1937-38)—*concl'd.*

Serial No.	Name of Supplier.	Bagdad White.							Remarks.
		Seed in ounces.	Rate per ounce.	Value in foreign money.	Value in Indian currency.	Customs duty.	Clearing and forwarding charges.	Total.	
			d.	£ s. d.	Rs.	Rs.	Rs.	Rs.	Rate per oz. f. o. r. Jammu.
1	One Supplier from Europe.	32 grs. 500	33 c. i. f. Bombay.	73 6 8	974	272	33	1,279	Rs. a. p. 2 8 11
2	2nd Supplier from Europe.	..	..	..	..	..	..	..	Rate in each case is per oz. of 30 grs. ..
3	3rd Supplier from Europe.	..	..	..	..	..	..	..	Rate in each case is per oz. of 32 grs. ..
4	4th Supplier from Europe.	..	..	..	..	..	..	..	Rate in case of Female Golden Chinese is per oz. of 30 grs. Rate in case of Male Golden Chinese is per oz. of 30 grs. Rate in each case is per oz. of 32 grs. ..
5	One Supplier from Persia.	2,000	Rs. a. p. 3 8 0 f. o. r. Jammu.	..	7,004	1,859	..	8,863	Rate in this case is per oz. of 32 grs. 4 6 10

APPENDIX " B ".

Rules regarding unauthorized possession of cocoons, etc.

Whereas it is expedient to provide a law against the unauthorized sale or possession of silk cocoons and seed and the unauthorized possession or receiving of raw Kashmir silk, it is hereby enacted as follows: -

- (1) This Regulation shall be called the Kashmir Silk Protection Regulation of 1963 and shall extend to the whole of the Jammu and Kashmir State.
- (2) The words (i) Kirm Kash, (ii) Silk Seed, (iii) Silk Cocoons and raw Kashmir silk shall have the meanings ordinarily attached to these terms in the Jammu and Kashmir State.

Explanation.- Raw silk includes waste silk.

- (3) Any Kirm Kash employed by the Sericulture Department, Kashmir, who disposes of by sale or otherwise in favour of any person, except the Director of Sericulture, Kashmir, or such persons as may be appointed by the said Director in his behalf, any silk cocoons reared by him and in his possession or any silk seed given to him for rearing by the said Director, or who wilfully neglects to deliver up the full quantity of silk cocoons reared by him; or to make over, if required to do so, any silk seed in his possession to the said Director of Sericulture or the persons appointed by him in his behalf, shall, on conviction, be liable to imprisonment of either description for a term which may extend to three years or to fine or to both.
- (4) Any person who without any authority from the Director of Sericulture in this behalf, receives, in any manner whatsoever, any silk cocoons or silk seed from any Kirm Kash or is found in possession of any silk cocoon or seed otherwise than under the authority of the Director of Sericulture, or other person or persons duly authorized by him in this behalf, shall be dealt with as if he had dishonestly received stolen property knowing or having reason to believe the same to be such, and shall be liable to be prosecuted under Section 311, Ranbir Daud Bidi.
- (5) Any person who receives or is found in possession of raw silk manufactured from cocoons reared under the authority of the Kashmir Sericulture Department otherwise than with the permission or under the authority of the Director or other person duly authorized by him in this behalf shall, on conviction, be liable to imprisonment of either description for a term which may extend to 3 years or to fine or to both.
- (6) Offences under this Regulation shall be triable by the ordinary Criminal Courts of the State in accordance with the Criminal Law and procedure of the State in force at the time.

APPENDIX " C ".

Copy of a telegram No. 7152, dated the 5th October, 1938, from Jamsilk, Jammu, to Accounts, Srinagar.

Tarboard asking for detail depreciation charges separately for Rearing and Reeling and also of Buildings and other Assets composing Block Account. Kindly wire if available and past.

Copy of a telegram No. Silk 7341, dated the 7th October, 1938, from Accounts, Srinagar, to Jamsilk, Jammu.

Your 7152 information not available separately for Rearing, Reeling or other assets,

APPENDIX "D".

PARA. No. 178, TABLE LXXX.
1936-37.

	Rs.	
Cost of Cocoons as per Statement of cost of production of cocoons	1,49,161	
Add value of mulberry leaf supplied free from Government lands at the rate of As. 8 per lb. of silk or 14 lbs. of cocoons for producing 7,032 maunds = $7,032 \times 82 \div 14 \times 2$	20,594	
Total cost of cocoons	1,69,755	Percent- age. 71.31
Cost above cocoons including Pension Contribution	68,296	28.69
Total	2,38,051	

APPENDIX "E".

PARA. No. 179, TABLE LXXXI.

Works cost of producing one lb. of raw silk in filatures during the year
1936-37.

Cocoons reeled Mds. 6,639
Silk produced lbs. 38,737
Rendia cocoons to one pound silk = $6,639 \times 82 \div 38,737 = 14.05$ lbs., say, for facility of calculation, 14 lbs. green.
Price per lb. of cocoons (including cost of leaf supplied free from Government lands) Rs. $1,69,755 \div 7,032 \times 82 = 4.71$ annas, say, for facility of calculation, 4½ annas.

	Rs. A. P.
(1) Cost of Cocoons $14 \times 4\frac{1}{2}$	4 2 0
(2) Labour (Rs. 29,837-3-0)	0 12 3
(3) Power and Light Rs. 1,309-5 and Fuel Rs. 8,082	0 3 10
(4) Supervision (Establishment Rs. 14,996, Half Salary Rs. 6,684 and Pension Contribution Rs. 1,197)	0 9 5
(5) Other charges Rs. 4,123*	0 1 8
Total	5 13 8†
Total reeling charges above cost of cocoons (Nos. 2 to 5)	1 11 2
Percentage of cost of cocoons to total cost Rs. $5.13.8 : 100 : Rs. 4.2.6$	71.00

*Reeling and Baling—

	Rs. A. P.
Baling material	331 11 6
Miscellaneous	291 0 0
Water tax	1,360 12 1
Commission to Silk Agents	514 0 0
Postage	537 0 0
Fire Insurance	231 0 0
Customs Duty	453 0 0
Stationery	114 0 0
Contingencies	291 0 0
Total	4,123 7 1

† Difference between this figure and that given in our previous Cost Statement is due mainly to small fractions having been omitted here and there for facility of calculation.

APPENDIX "F".

PARA. NO. 180, TABLE LXXXII.

Estimated cost of producing one pound of silk in our existing Filatures.

No. of Basins 107

Rendita green cocoons per lb. of silk 14 lbs.

Name of Head.	Expenditure, 1936-37.	Cost per lb. at Rs. 12-8 per maund of cocoons.	Cost per lb. at Rs. 14-6 per maund of cocoons.	Cost per lb. at Rs. 16-4 per maund of cocoons.	Cost per lb. at Rs. 18-12 per maund of cocoons.	Cost per lb. at Rs. 20 per maund of cocoons.	REMARKS.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
Cost of cocoons per pound . .	1,69,755 0	0 4 9	0 5 14	0 5 6	0 6 0	0 6 3	
Cost of 14 lbs. cocoons including carriage.	..	4 2 6	4 7 9	4 13 0	5 4 0	5 7 6	
Stiffing at pices 2. . . .	..	0 0 2	0 0 2	0 0 2	0 0 2	0 0 2	
Fuel, Power and Light . .	9,391 5	0 3 10	0 3 10	0 3 10	0 3 10	0 3 10	
Labour	20,837 3	0 12 3	0 12 3	0 12 3	0 12 3	0 12 3	
Supervision	22,877 0	0 9 5	0 9 5	0 9 5	0 9 5	0 9 5	
Other charges, vide Table LXXXI	4,123 7	0 1 8	0 1 8	0 1 8	0 1 8	0 1 8	
Total . . . . .	..	5 13 10*	6 3 1	6 8 4	6 15 4	7 2 10	Actually most of our crop is sundried, hence the charge on this account is almost insignificant but since proper stiffing is necessary for securing good results the rate of 2 pices per lb. accepted by the Tariff Board has been adopted in the statement.

<i>Deduct value of waste produced per lb. of silk.</i>	..	0 10 4	0 10 4	0 10 4	0 10 4	0 10 4	0 10 4
Net cost . . . . .	..	5 3 6	5 8 9	5 14 0	6 5 0	6 8 6	
Depreciation charges	2,667 0	0 0 10	0 0 10	0 0 10	0 0 10	0 0 10	
Interest on working capital @ 7½% per annum.†	..	0 1 10	0 1 11	0 2 1	0 2 2	0 2 3	
Total	..	5 6 2	5 11 6	6 0 11	6 8 0	6 11 7	
Profit at 8% on fixed capital	..	0 4 9	0 4 9	0 4 9	0 4 9	0 4 9	
Fair selling price †	..	5 10 11	6 0 3	6 5 8	6 12 9	7 0 4	

	Rs.	Rs.	Rs.	Rs.	Rs.
† Detail :—					
‡th silk 9,684 lbs.	17,074	17,074	17,074	17,074	17,074
‡th cocoons 1,758 Mds.	42,439	46,175	49,553	54,058	56,311
Total	59,513	63,249	66,627	71,132	73,385
† Detail :—					
Buildings	71,422				
Machinery	16,324				
Lands	55,000				
Total	1,42,746				

* See remarks against Table LXXVI.

† To the difference mentioned therein has to be added 2 pice on account of stifling charge included in this statement.

APPENDIX "G".

TABLE LXXXIII.

Estimate of the cost of working a 200 Basin Filature using the Jammu univoltine cocoons.

Serial No.	Nature of Charge.	Rate of Price of cocoons Rs. 12/8 per Md.	Rate of Price of cocoons Rs. 14/6 per Md.	Rate of Price of cocoons Rs. 16/4 per Md.	Rate of Price of cocoons Rs. 18/12 per Md.	Rate of Price of cocoons Rs. 20/0 per Md.	Remarks.
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Quantity of cocoons required for working 200 basins—Rendita 14 pounds (Jammu)
(Production per basin $1\frac{1}{2}$ lb.) = $3\frac{1}{2} \times 200 \times 14 \times 300 = 1,260,000$ pounds.

		@ 0/4/9	@ 0/5/1½	@ 0/5/8	@ 0/6/0	@ 0/6/3 per lb.	Details of various necessary items enclosed.
1	Value of lbs. 1,260,000 cocoons. Quantity of silk—1,260,000 : 14 = 90,000 lbs.	3,74,062	493,594	433,125	4,72,500	4,92,187	
2	Transport charges included in Items No. 1 above.	..	..	..	..	..
3	Stifling @ 0/0/2 per pound.	13,128	13,128	13,128	13,128	13,128	
4	Cost of Labour . . .	92,756	92,756	92,756	92,756	92,756	
5	Cost of supervision and management.	24,500	24,500	24,500	24,500	24,500	
6	Cost of power 16,300 units @ 0/1/0 per unit.	1,043	1,043	1,043	1,043	1,043	
7	Cost of light . . .	240	240	240	240	240	
8	Cost of fuel 933 Tons @ 19/4/0.	17,960	17,960	17,960	17,960	17,960	
9	Cost of water 4,985,100 gallons @ 0/8/0 per 1,000.	2,508	2,508	2,508	2,508	2,508	
10	Cost of repairs @ 1% on the value of the machinery, i.e., Rs. 1,86,500.	1,865	1,865	1,865	1,865	1,865	
11	Miscellaneous @ 0/0/8 per lb for 90,000 lbs.	3,487	3,487	3,487	3,487	3,487	
12	Selling expenses, postage and stationery @ 0/0/2	1,200	1,200	1,200	1,200	1,200	
	Total .	5,32,749	5,62,281	5,91,812	6,31,187	6,50,874	

APPENDIX "G"—*contd.*

Serial No.	Nature of Charge.	Rate of price of cocoons Rs. 12/8 per Md.	Rate of price of cocoons Rs. 14/6 per Md.	Rate of price of cocoons Rs. 16/4 per Md.	Rate of price of cocoons Rs. 18/12 per Md.	Rate of price of cocoons Rs. 20/0 per Md.	Remarks.
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Quantity of cocoons required for working 200 basins—Rendita 14 pounds (Jammu)
(Production per basin $1\frac{1}{2}$ lb.) $3\frac{1}{2} \times 200 \times 14 \times 300$ 1,260,000 pounds.

		@ 0/4/9	@ 0/5/11	@ 0/5/6	@ 0/6/0	@ 0/6/3 per lb.	Details of various necessary items enclosed.
13	Deduct—value of silk-wastes—quantity of wastes @ .8 per lb. of silk for 30,000 lbs. $30,000 \times 8/10$ @ 0/13/0 per lb.	58,500	58,500	58,500	58,500	58,500	
	Net Amount	4,74,249	5,03,781	5,33,312	5,72,687	5,92,374	
	Depreciation—						
	Buildings Rs. 1,00,000 @ 2%.	2,000	2,000	2,000	2,000	2,000	
	Machinery Rs. 1,86,500 @ 5%.	9,325	9,325	9,325	9,325	9,325	
	Interest on Fixed capital expenditure of Rs. 3,41,500 @ 8%.	27,320	27,320	27,320	27,320	27,320	
	Interest on working capital @ 9% for 3 months' output of cocoons and silk.	20,403	21,726	23,058	24,831	25,713	
	Total cost of Production.	5,33,297	5,64,152	5,96,015	6,36,163	6,56,732	

Labour.

	Rs. A.
Spinners—200 at Re. 1 each per day	200 0
Cooks—100 at As. 6 each per day	37 8
Knotters—50 at As. 7 each per day	21 14
Silk-wastes cleaners, one for every 5 basins—40 at As. 7 each per day	17 8
Brush repairer—1 at As. 7 each per day	0 7
Silk Cleaners 28 at Re. 1 each per day	28 0
Muraniwalas 2 at As. 14 each per day	1 12
Master Spinners—2 at Re. 1-1 each per day	2 2
Daily Total	309 3
Expenditure for a year of 300 working days	92,756 4

Cost of Supervision and Management.

	Per month.
	Rs. A.
Director (Half salary)	350 0
Assistant Director (Half salary)	150 0
<i>Office (Half pay)—</i>	
Superintendent	70 0
Accountant	40 0
5 Clerks at Rs. 27-8 each	137 8
4 Peons at As. 7 each	28 0
<i>Filature Section (Full pay)—</i>	
3 Inspectors in charge Filature, Silk Store, Cocoon Godown and Testing, etc.-	
1 at Rs. 150	150 0
2 at Rs. 100 each	200 0
2 Sub-Inspectors at Rs. 30 each	60 0
2 Time Keepers at Rs. 30 each	60 0
4 Nigrans at Rs. 19 each	76 0
2 Nigrans at Rs. 19 each	38 0
2 Balers at Rs. 14 each	28 0
2 Silk Sorters at Rs. 14 each	28 0
1 Mechanic at Rs. 50	50 0
1 Carpenter at Rs. 36	36 0
1 Fitter at Rs. 36	36 0
1 Engineman at Rs. 36	36 0
2 Firemen at Rs. 15 each	30 0
2 Firandars at Rs. 14 each	28 0
2 Bahishties at Rs. 12 each	24 0
2 Workmen at Rs. 14 each	28 0
1 Jamadar at Rs. 18	18 0
12 Watchmen at Rs. 14 each	168 0
1 Guard at Rs. 11	11 0
4 Gate Keepers at Rs. 14 each	56 0
2 Godownmen at Rs. 12 each	24 0
Total	1,960 8
	per month.
Rs.	
Annual expenditure	23,526
Add—Pension Contribution roughly Rs. 1,000	1,000
Total	24,526
Say Rs. 24,500.	

Cost of Power.

Power consumed in 1936-37 for working 107 Basins	8,716.32 units.
Therefore for 200 Basins power required	16,293 „
Say 16,300 units	
	Rs. A.
Cost of 16,300 units at 1 anna per unit	1,018 12
Meter hire	24 0
	<hr/>
Total	1,042 12
	<hr/>
Say Rs. 1,043	

Cost of Light.

	Rs.
Actual cost of light during 1936-37 for working 107 Basins	48
Therefore cost of light for working 200 Basins	90
Light and fan charges for Office	113
Light in Boiler Shed	13
Meter hire	24
	<hr/>
Total	240
	<hr/>

Cost of Fuel.

Daily consumption of coal for working 107 Basins	45 Mds.
For 200 Basins daily consumption would amount to	84 „
Expenditure for 300 days 84×300	25,200 „
Or at 27 maunds per ton	933 Tons.
Value of 933 tons at Rs. 19-4 per ton as per detail below	Rs. 17,960
	Per ton.
	Rs. A.
Price	5 8
Railway Freight	12 2
Customs Duty	0 10
Carriage charges	0 13
Weighing and unloading	0 3
	<hr/>
Total	19 4
	<hr/>

Cost of Water.

	Gallons.
Daily consumption for 107 Basins	8,890
Daily consumption for 200 Basins would amount to	16,617
Annual consumption for 300 working days	4,985,100
	Rs. A.
4,985,100 gallons at As. 8 per 1,000 gallons	2,492 8
Meter hire	15 12
Total	2,508 4

Machinery.

	Rs.
1. Socheoirs (four of twelve chambers)	25,000
2. 200 Italian basins model GQ 10 delivered and fitted at Jammu	1,27,500
3. 2-Five Horse power motors	900
4. 8 Thermo ventilators	5,000
5. 1 Boiler	25,000
6. Filature appliances (Denier Scales, Testing Machines, Morani Stands and Seri Meter, etc.)	1,300
7. Silkwasto Pross	900
8. Re-winding Machinery	900
Total	1,86,500

Miscellaneous.

	Rs. A.
Baling Material	800 0
Miscellaneous Roeling Baling	800 0
Postage	1,000 0
Fire Insurance	600 0
Customs Duty	400 0
Stationery	200 0
Contingencies	1,000 0
Total	4,800 0
Say at pics 10 per lb.	4,637 8

Buildings.

	Rs.
1. Cocoon store with weighment and Sorting Shed .	30,000
2. Building for Seccheirs	7,000
3. Filature	25,000
4. Boiler Shed	4,000
5. Fixtures in Filature (including electric fittings and lamps, etc.)	650
6. Water Reservoir	5,000
7. Ten-seated latrine	500
8. Gato-keeper's Hut	200
9. Silk and Waste Godown, Testing Room and Office	12,000
10. Chowkidar's Quarter—9 Quarters at Rs. 500 each	4,500
11. Compound Wall	10,000
12. Drains, Roads, Taps and Water connection, etc.	1,500
Total .	1,00,350
Say .	1,00,000

Interest on Working Capital.

	@ Rs. 12/8.	@ Rs. 14/8.	@ Rs. 16/4.	@ Rs. 18/12.	@ Rs. 20.
	Rs.	Rs.	Rs.	Rs.	Rs.
Value of cocoons .	3,74,062	4,03,594	4,33,125	4,72,500	4,92,187
Value of silk .	5,32,749	5,62,281	5,91,812	6,31,187	6,50,874
Working capital for 1 year .	9,06,811	9,65,875	10,24,937	11,03,687	11,43,061
Working capital for 3 months .	2,26,703	2,41,469	2,56,234	2,75,922	2,85,765
Interest at 9 per cent.	20,403	21,726	23,058	24,831	25,713

APPENDIX 'H'.

TABLE LXXXIV.

Cost of producing 1 lb. of raw silk in a 200 Basins Filature in Jammu.

Nature of charge.	Rate per maund of cocoons.					Remarks.
	Rs. 12-8.	Rs. 14-6.	Rs. 16-4.	Rs. 18-12.	Rs. 20-0.	
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Rendita 14 lbs.—price per pound . . .	0 4 9	0 5 14	0 5 6	0 6 0	0 6 3	
Cost of cocoons including transport, etc. . .	4 2 6	4 7 9	4 13 0	5 4 0	5 7 6	
Stiffing at 2 pies per pound . . .	0 0 2	0 0 2	0 0 2	0 0 2	0 0 2	
Fuel, Light and Power . . .	0 3 5	0 3 5	0 3 5	0 3 5	0 3 5	
Labour (Rs. 92,756 ÷ 90,000) . . .	1 0 6	1 0 6	1 0 6	1 0 6	1 0 6	
Supervision (Rs. 24,500 ÷ 90,000) . . .	0 4 4	0 4 4	0 4 4	0 4 4	0 4 4	
Other charges (Rs. 7,200 ÷ 90,000) . . .	0 1 3	0 1 3	0 1 3	0 1 3	0 1 3	
Total . . .	5 12 2	6 1 5	6 6 8	6 13 8	7 1 2	
Deduct value of wastes .8 per lb. of silk at 13 as. per lb. . .	0 10 4	0 10 4	0 10 4	0 10 4	0 10 4	
Net cost . . .	5 1 10	5 7 1	5 12 4	6 3 4	6 6 10	
Depreciation per lb. (11,325 ÷ 90,000) . . .	0 2 0	0 2 0	0 2 0	0 2 0	0 2 0	
Interest on working capital . . .	0 3 4	0 3 10	0 4 1	0 4 5	0 4 7	
Profit per lb. at 8 per cent. on the Fixed Capital (Rs. 27,320 ÷ 90,000) . . .	0 4 9	0 4 9	0 4 9	0 4 9	0 4 9	
Fair selling price . . .	5 11 11	6 1 8	6 7 2	6 14 6	7 2 2	

APPENDIX "I".
Statement showing the detail of sales of Silk and Silkbands of various qualities during 1936-37.

No.	Kind.	Sales in India.			Sales in Europe.			Local Sales.		
		Quantity.	Value.	Average Rate.	Quantity.	Value.	Average Rate.	Quantity.	Value.	Average Rate.
		lbs. oza. dra.	Rs. A. P.	Rs. A. P.	Lbs.	Rs. A. P.	Rs. A. P.	lbs. oza. dra.	Rs. A. P.	Rs. A. P.
1	Special silk .	270 7 4	1,862 2 0	6 14 2	..	..	..	..	..	..
2	Neel silk .	3,997 7 8	25,039 15 6	6 4 3	..	..	..	..	..	..
3	No. 1 silk .	22,877 13 8	1,22,931 3 6	5 5 6	..	..	..	262 11 12	1,385 6 0	5 3 5
4	No. 2 silk .	13,105 8 0	66,603 4 6	5 1 4	..	..	..	105 15 12	531 0 6	5 0 2
5	Dopost silk .	1,896 0 0	5,688 0 0	3 0 0	..	..	..	..	..	..
6	Cut silk .	129 12 0	460 0 0	3 8 2	..	..	..	..	..	..
7	Kilchies .	128 0 0	576 0 0	4 8 0	..	..	..	..	..	..
8	Sarnakh .	..	..	..	20,000	23,956 2 7	1 3 2	..	..	..
9	Gudar .	..	..	..	1,000	528 5 4	0 8 5	..	..	..
10	Nimtar Bandna .	303 0 0	982 10 0	2 11 3	..	..	..	..	..	..
11	Khokharu .	12,784 0 0	5,101 11 6	0 6 1	..	..	..	..	..	..
12	Cut cocoons .	1,137 0 0	1,434 13 0	1 4 2	..	..	..	..	..	..
13	Puda cocoons .	4,772 0 0	844 6 0	0 2 10	..	..	..	..	..	..
14	Fluff .	1,365 0 0	588 0 9	0 6 11	..	..	..	..	..	..

APPENDIX "J".

Information received in October, 1938, through the good offices of a very well established firm in Europe regarding the wages paid in Italian Raw silk Filatures.

(Daily wage for 8 hours work.)

Brushing Cocoons (all women workers)—		L.
Apprentices (during max. 3 months)	4.40	(or As. 10-2 in Indian currency at the current rates of exchange, i.e., L. 90.56 to a £ and 1s. 5½d. to a rupee).

First cocoon brusher	4.70	(or As. 10-8 do.).
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Second cocoon brusher	4.95	(or As. 11-6 do.).
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(These wages include 10 minutes daily for the preparation of the basins before beginning the reeling work.)

Reeling (all women workers)—

The reeling girl is considered a complete silk reeler when she has worked effectively for three seasons as—

	L.	
First silk reeler ½ season	5.65	(or As. 13-6 do.).
Second silk reeler ½ season	6.25	(or As. 14-7 do.).
Silk Reeler	7.00	(or Re. 1-0-5 do.).
Complete Silk Reeler	7.55	(or Re. 1-1-9 do.).

(A silk reeler is considered a complete silk reeler if she produces the quantity normally produced by an efficient reeler, even if she has not completed the seasons in the other classes. The above-mentioned wages are for basins reeling 12 hanks at the time. For basins reeling from 12 to 16 hanks there is an augmentation of 5 per cent. and if more than 16 to 20 the augmentation is 10 per cent.)

Other work in the Filature—

Apprentice working part-time as reeler and part-time in tying the ends of the threads between the basin and the reel	L.	
Girl tying ends only, as above	6.10	(or As. 14-2 do.).
Reeling Overseer	6.50	(or As. 15-1 do.).
Girl cocoon selector, whole year	10.90	(or Re. 1-9-10 do.).
Girl cocoon selector, during crop	5.85	(or As. 13-9 do.).
Girl preparing the waste (Frisons)	5.85	(or As. 13-9 do.).
	6.05	(or As. 14-2 do.).

Workers in the Inspection Room—

	L.	
Girls making the size tests	7.65	(or Re. 1-1-9 do.).
Girls cleaning the silk and removing irregularities, etc.	7.60	(or Re. 1-1-9 do.).
Girls making the hanks	7.65	(or Re. 1-1-9 do.).
Overseer	8.30	(or Re. 1-3-7 do.).
Girls preparing the hanks	6.60	(or As. 15-6 do.).
Men preparing the hanks	13.55	(or Re. 1-15-9 do.).

(6) *Letter No. D. 9308/38, dated the 14th October, 1938, from the Assistant to the Resident in Kashmir.*

PROTECTION FOR THE SERICULTURE INDUSTRY.

In continuation of letter from this Residency No. D. 6261/38, dated the 18th July, 1938, I am directed to forward, for information, a copy of letter from the Kashmir Government, No. D. 520/33-PB, dated the 13th October, 1938, with 6 copies of enclosures in original.

Enclosure.

Copy of a letter from the Kashmir Government to the Assistant to the Resident in Kashmir, No. D. 520/38-PB, dated the 13th October, 1938.

PROTECTION FOR THE SERICULTURE INDUSTRY.

In continuation of this office express letter No. D. 520/38 PB, dated the 15th July, 1938, on the subject noted above, I am directed to forward herewith for transmission to the Tariff Board, a copy (with 6 spare copies) of the replies to the questionnaire regarding handloom industry in the State as prepared by the Director of Industries of the State. The figures given in the replies are based on surveys held recently.

1. (a) From the rough census taken in the year 1932 the total number of handlooms in the State was estimated at 46,000 out of which 1,000 were working on silk and imported spun silk. There are no looms on which mixtures of cotton and silk are used. The number of handlooms working on cotton is 15,610.

(b) Some increase in the number of handlooms engaged in silk weaving is in evidence but there has been no regular census taken recently. Moreover all the looms have been more busy since 1934.

2. Raw silk and silk yarn are obtained from the Government Silk Factory. Spun silk yarn is imported chiefly from Japan. Artificial silk is used in only small quantities. The gold thread is imported from Surat and Benares.

The prices paid are as follows:—

	Rs. A.	Rs. A.
(i) Spun silk	3 12 to 4 8	per lb.
(ii) Artificial silk	1 12	„
(iii) Kashmir silk	5 0 to 6 0	„

Mixtures of silk and pushmina have been in common use in Kashmir for a very long time but recently the local silk weavers have been using mixtures of ruffle, wool and silk.

3. Yes. Only to a very small extent and probably not more than 5 per cent. It is imported from Japan.

4. Not so far. Staple fibre goods have not been very much in favour but in recent years imports have been increasing.

5. The handloom weavers do not use twisted yarn with the exception of a very few. The other processes except boiling and dyeing are done by the weavers themselves. In the case of bigger establishments the boiling down and dyeing is done in the factories by dhobies and dyers but in the case of smaller workshops the silk fabrics produced are boiled by the dhobies in their homes and dyed by the dyers who work on their own.

6. Usually Kashmir silk is used for both but where spun silk is used it is used for weft.

7. Silk weaving is mostly concentrated in the Srinagar city. Major portion of the cloth is made in bigger factories who finance their own business themselves. Cottage workers produce cloth for merchants or for

bigger factories who finance them. Usually smaller weavers work for wages and not for profits. These weavers naturally have to part with a portion of their earnings to the financiers. The lot of these cottage weavers can be improved only by Government Agency if they supply them with the raw materials and take over their finished goods and put them in the best markets.

8. The following varieties of silk goods are produced at present on the handlooms in Kashmir:—

- (1) Saroes.
- (2) Dupattas.
- (3) Suitings.
- (4) Shirtings.
- (5) Hankies.
- (6) Gown pieces.

In the local market goods mentioned above are mostly common and are cheaper than the similar imported goods.

9. The total production is about 4,00,000 yards.

10. Sari—One day.

Dupatta—One day.

Shirtings—Five days for a piece of 25 yards.

Hankies—Three dozens a day.

Gown pieces—Five days for a piece of 25 yards.

11. Kashmir silk and spun silk is consumed in the ratio of 50 : 50.

12. (1) Saries 45' width, length 6 yards at Rs. 6 per piece (plain woven).

(2) Dupattas 45" x 3 yards at Rs. 4 per piece.

(3) Shirtings 27" width at As. 14 to Re. 1 per yard.

(4) Handkerchiefs—24" x 24" at As. 8 each.

(5) Gown pieces width 45' at Rs. 2 per yard.

13. Total value of silk goods manufactured during 1937 is roughly estimated to be about Rs. 4,00,000 to Rs. 5,00,000.

14. Spun silk is mostly used for cloth to be made into embroidered bed covers, curtains, table covers and inferior sort of shirting.

15. Most of the weavers get their requirements of Kashmir silk direct from the Government Silk Factory and other silks from the middlemen.

16. The bigger manufacturers get their silk from the Silk Factory on credit and the smaller ones pay cash. The bigger manufacturers import spun silk direct from Japan and the cottage workers get it from dealers for whom they work, or from the bigger factories for whom they produce cloth.

17. They sell direct to weavers.

18. The Kashmir silk is stronger than the imported silk but possesses less of lustre. Our silk always fetches a better price except when it is not uniform.

19. The sorting and grading is done by the Government factory.

20. No. This practice is not very common but some of the weavers work for factories and merchants and they usually work on wages.

21. As regards proper advertising for marketing the differentiation of different units of weight has to be carried further than what it has been so that the needs of the different silk weaving centres could be met in a more proper manner. Efforts are being made to narrow down the denier ranges and also reduce the content of foul and lengths of fine and coarse yarns in the same grade. It is only after satisfactory arrangements are made in this respect that advertising will pay. Some little progress has been made in this respect since the last Tariff Board's Enquiry.

22. There has been very little improvement in the process of re-reeling but experiments are being made to reduce the content of gum and improve the re-reeling. It is a fact that the Indian silk is more difficult to wind than the imported silk.

23. Artificial silk is not used in Kashmir to any great extent at present.

24. There is no competition to speak of between the imported spun silk and our local raw silk. The local silk does give decidedly a better fabric and is comparatively not very dear.

25. The factor of wages in the case of manufacture of silk in Kashmir is more or less a steady one. The prices of the raw material have varied according to the market and quality between Rs. 3-12 and Rs. 6 per pound. The production and sales in Kashmir being limited and the visitors being important customers of silk goods produced in Kashmir, the manufacturer usually gets some margin which varies between 3 to 15 per cent. The costs of production and the sale prices in the case of the important articles produced are as follows:—

	Cost of production. Per yard. Rs. A.	Selling price. Per yard. Rs. A.
(a) Tabia 44" width	0 14	0 15
(b) Twill 44" width	1 2	1 4
(c) Sarees 44" width	0 14	0 15

26. The existing duties have decidedly been of some benefit to the handloom weavers but on account of the manipulation of the exchange by Japan and dumping at times this protection has not been adequate.

27. The production has increased as a result of protection of 1934 as the figures of consumption of raw silk given below will show:—

Year.	Consumption. Pounds.
1933-34	9,615
1931-32	20,489
1932-33	12,806
1933-34	14,309

Margins of profit vary according to competition from Japan. The manufacturers naturally adjust by using imported spun silk.

	Rs. a.	Rs. a. p.
28. Raw materials	5 0 to	5 8 0 per pound.
Winding charges	0 4	0 6 0
Dyeing charges	0 4	0 6 0
Weaving charges	0 1	0 1 6 per yard.
Other charges	0 8	1 0 0 per pound.

The weavers are paid per piece.

29. There are no co-operative societies in this line.

30. In the local as well as in the markets of British India export is done by post parcels and also through salesmen who go out to the plains in the winter. The cost of sending the goods by post is about half anna per yard.

31. From the increased production, it may be concluded that the demand is increasing.

32. The Government Factories at Jammu and Srinagar, supply the raw silk at present. The silk consumed in the State has been given above.

33. There has been to some extent.

34. But for protection it is doubtful if the industry would have been able to hold its own and do as it has done.

(7) *Letter No. 371, dated the 15th November, 1938, from the Director of Industries and Commerce, His Highness' Government, Jammu and Kashmir.*

I have the honour to enclose herewith replies to some of the questions put to me during the course of my evidence before the Tariff Board in Srinagar and for which I had promised to send replies later.

1. The quality of silk mostly used on handlooms in Kashmir is tulip.
2. The price of organzine imported in Srinagar was Rs. 8-12 in March, 1937. Tram is not being imported into Kashmir. The price of organzine mentioned above corresponds to price of untwisted silk at Rs. 5-8 per pound. The firms importing thrown Japanese silk are Messrs. Sarwanand Raina and Sons and Commercial Union Silk Weaving Company.
3. 60 per cent. of the silk goods produced are sold locally and 40 per cent. are exported outside.
4. The figure of silk consumed in the State in the year 1991-92 is 20,489 pounds 3 ounces valuing Rs. 73,110-1-9. The abnormal consumption is due to the low price at which large stocks were cleared at the time by the Government Silk Factory.
5. The same as in British India.
6. Please see the Statement No. I.
7. Please see the Statement No. II.

STATEMENT NO. 1.

Imports of Silk in Jammu & Kashmir State.

Particulars.	Quantity in maunds.			Value in rupees.		
	1991-92	1992-93	1993-94	1991-92	1992-93	1993-94
	1934-35	1935-36	1936-37	1934-35	1935-36	1936-37
				<i>Kashmir Province.</i>		
Piecegoods Indian .	17	16	38	5,829	4,974	12,388
Piecegoods Foreign .	356	225	932	69,475	60,499	1,07,883
Yarn foreign .	422	513		50,380	53,104	
Yarn Indian .	11	6	17	2,087	712	476
Total .	806	760	987	1,27,771	1,19,289	1,20,547
				<i>Jammu Province.</i>		
Piecegoods Indian .	1	1	..	643	552	470
Piecegoods Foreign .	460	240	191	88,812	50,554	50,109
Yarn (Indian and Foreign).	591	328	234	55,552	37,748	30,659
Total .	1,052	569	425	1,45,007	89,154	81,238

STATEMENT NO. 2.

Cost of various articles manufactured on handlooms showing profit percentage in various cases.

Particulars.	Cost of Raw Material.	Weaving charges.	Winding, Warping, Drafting, etc., Charges.	Rent, Insu. Power, etc., Charges.	Washing and Dyeing Charges.	Total cost.	Sales price.	Profit.	Remarks.
	Rs. a. p. 5 10 0 (1 lb. 2 oz.)	Rs. a. 1 9	Rs. a. p. 1 2 0	Rs. a. p. 0 5 0	Rs. a. p. 0 10 0	Rs. a. 9 4	Rs. a. p. 9 6 0	Per cent. 14	This statement has been given by Messrs. Surwanda and Sons, Srinagar. This firm have 110 hand-loomers and are the largest handloom weavers. The profits shown are the minimum and the maximum profits do not exceed 7½ per cent. and are realised only in a fair case.
No. 1.—Extract from warp No. 4810 Kashmir Silk Plain Sarees, 45" width and 10 yards in length.	33 5 0 6 lbs. 9 oz.)	8 10	4 5 0	0 13 0	3 7 0	50 8	51 9 0	2	
No. 2.—Extract from Warp No. 4324. Kashmir Silk Tabby 45" × 55 yards.	185 0 0 (37 lbs.)	11 0	5 8 0	4 8 0	9 0 0	215 0	222 0 0	34	
No. 3.—Extract from Warp No. 4705. Spun white 54" × 44 yards.	76 5 0 (18 lbs. 8 oz.)	5 13	2 7 0	1 1 0	2 8 0	88 0	90 0 0	About 3	
No. 4.—Extract from Warp No. 4831. Spun Khat'i 54".	44 6 0 (8 lbs. 14 oz.)	13 5	2 3 0	2 3 0	3 0 0	65 1	66 9 0	25	
No. 5.—Extract from Warp No. 4825. Puriyayi 25" × 70 yards.	80 0 0 (16 lbs.)	6 0	2 8 0	1 2 0	4 6 0	93 0	95 8 0	3	
No. 6.—Extract from Warp No. 4777. Sulit'ing silk.	5 0 0 (1 lb.)	2 5	1 2 6	0 4 6	1 2 0	9 14	10 0 0	14	
No. 7.—Extract from Warp No. 4836. Kashmir silk handkerchiefs.	10 0 0 (2 lbs.)	2 10	1 5 0	0 7 0	1 2 0	16 2	17 0 0	54	
No. 8.—Extract from Warp No. 4806. Kashmir silk Turbas, 27 × 28 yards.									

- (8) *D. O. No. 1, dated the 18th November, 1938, from Mr. T. C. Wazir, Director of Sericulture, Jammu, to Mr. F. I. Rahimtoola, President, Tariff Board.*

You were pleased to ask me in Srinagar to request Mr. Psychaud to furnish you with the details as to how the cost of leaf supplied free from Government lands amounted to eight annas per pound of silk in case of Kashmir and to say 'how much of the expenditure charged for cocoons is meant for future expansion of mulberry cultivation'. In this connection I have heard from Mr. Psychaud as per his D. O. letter No. 423/68, dated the 9th November, 1938, copy of which along with that of its enclosure I am enclosing herewith for your information.

Copy of a D. O. letter No. 423/68, dated the 9th November, 1938, from R. Psychaul, Esqr., Director of Sericulture, Srinagar, to Mr. T. C. Wazir, Director of Sericulture, Jammu.

Please refer to your letter No. 17/C, dated the 31st October, 1938.

Enclosed please find the details in regard to cost of leaf. I hope that the Tariff Board will be satisfied with those details.

The point "how much of the expenditure charged for cocoons is meant for future expansion of Mulberry cultivation" is not quite clear to me. The question which the Board asked us in the meeting held on 31st October was why we were debiting to our working capital the cost of the plantations which are laid out by the Department for the benefit of the future. Their contention was that if say only 2,000 mulberry trees are lost to the Department in a year through decay and other causes, we should charge for planting only that number in our working expenses. What the Board has to consider in this connection is that 2,000 new plants which have little or no leaf yielding capacity in the first seven years cannot go to replace the same number of old grown up trees. As we cannot exactly determine the extent of the loss sustained by the Department through disappearance of grown up trees every year either as a result of natural causes or of fellings arranged departmentally, it is not possible to say what part of the expenditure incurred on new plantations would if at all, be deductable from the working expenses of the year as a set-off for future.

Details showing how cost of leaf supplied free to rearers from Government lands comes to As. 8 per lb. of raw silk.

For rearing one ounce of seed about 80 loads of leaf of 40 lbs. each are used by rearers.

Valuing 1 load at As. 3 (which is the minimum rate) the total value comes to about Rs. 9-8, say Rs. 10.

Taking the produce of 1 ounce of seed to be 80 lbs. and average yield of raw silk from 80 lbs. of cocoons to be 5 lbs., the cost of total leaf per lb. of silk comes to Rs. 2.

Estimated proportion of leaf supplied from Government lands is 25 per cent therefore the cost of leaf taken by rearers from Government lands works out to about As. 8 per lb.

- (9) *Telegram No. 1511, dated the 30th November, 1938, from the Tariff Board, to the Director of Sericulture, Kashmir, Srinagar.*

Kindly post immediately complete figures for Jammu and Kashmir for 1937-38.

(10) Letter No. 1056, dated the 6th December, 1938, from the Director of Sericulture, Kashmir Province, Srinagar.

As desired in your telegram No. 1311, dated the 30th November, 1938, I have the honour to give below the necessary data in regard to the Province of Kashmir for the year 1937-38 (corresponding to Sambat year 1994-95):—

1. *Number of persons engaged in the Industry.*

Rearing.	Reeling.	Permanent staff.
Rearers.	Reelers sorters, etc. (average daily attendance of labour).	of the Department.
46,724	1,633	347 + 84*
2. Expenditure (including depreciation)—Rs. 8,66,524.		
Expenditure (excluding depreciation)—Rs. 8,26,782.		
3. Cocoons produced=26,882. Mds. (green).		
Raw silk reeled—169,370 lbs.		
4. Average yield of raw silk per green maund of cocoons (excluding Dopost)—6 lbs. 10 ozs. 4 drs.		
Average yield of raw silk per green maund of cocoons (including Dopost) -6 lbs. 10 ozs. 13 drs.		
9. Quantity of seed produced—25-300 ozs. (30 grs.)		
Cost of production per ounce of seed—Rs. 1-10-11.		
19. Number of mulberry plants distributed—76,000.		
21. Yield per ounce (30 grs.) of seed—29 Srs. 5-3 Chks.		

23. *Cost of production of cocoons per maund.*

Amount of cocoons produced	26,882 Mds.		
	Rs.	A.	P.
Salaries and Establishment	66,694	0	0
Price of cocoons	3,93,201	6	6
Price of seed from Europe	34,685	0	0
Repairs	2,293	0	0
Contingencies including Mulberry Culturo charges	9,525	4	6
Fuel	803	14	0
Rearing and Local seed	26,471	1	½
Postage and telegrams	209	0	6
Electric Power charges	520	0	0
Travelling Allowance	5,111	7	0
Fire Insurance	1,749	1	6
Stationery	395	0	0
Depreciation	9,935	0	0
Audit charges	500	0	0
Pension contribution	771	0	0
Total Expenditure	5,52,864	3	½

Cost per maund of cocoons 20 9 1

NOTE.—The above figures do not include the charge on account of interest on capital or cost of leaf supplied free from Government lands.

* Temporary hands employed in Mulberry Culture.

27. Total quantity produced—

	lbs.
Silk	169,370
Silk waste	88,014

Average price obtained--

	Rs. A. P.
Silk	5 8 7
Silk waste	0 9 7

29. Works expenditure on reeling--

	Rs. A. P.
Reeling charges	3,13,659 15 9
Cost of cocoons	5,44,487 0 0
Total	8,58,146 15 9

Cost of production of Raw Silk per pound.

Quantity of silk reeled 169,370 lbs.

Quantity of cocoons issued for reeling--

	Mds.
Crop, 1936-37	16,575
Crop, 1937-38	8,794
	25,369 Mds.

	Rs. A. P.
Salary and Establishment	61,175 10 9
Travelling Allowance	1,480 11 6
Postage and Telegrams	420 0 0

Reeling and Baling--

	Rs. A. P.
Reeling	1,65,014 4 7½
Baling	7,059 6 3
	1,72,073 10 10½
Repairs	4,587 4 10½
Fire Insurance	3,499 0 0
Fuel	29,237 4 9
Electric Power charges	1,040 13 3
Contingencies including uniforms	4,440 11 9
Depreciation	29,807 0 0
Stationery	355 0 0
Pension contribution	1,542 12 0
Audit charges	1,000 0 0

Total	3,13,659 15 9
Deduct value of bye-products	71,621 10 4

Net works cost of silk produced	2,42,038 5 5
--	---------------------

	Rs. A. P.
Net works cost of silk per lb.	1 6 10
Add value of cocoons consumed per lb. . .	3 3 5
Add interest on capital	0 8 4
Add charges on account of mulberry leaf from State lands	0 8 0
Total cost of production per pound . . .	5 10 7

A statement showing detail of works cost of reeling one pound of Raw Silk under different Heads is enclosed.

29. *Detail of bye-products.*

	Rs. A. P.
Sarnakh 38,523 lbs. 8 ozs. at Rs. 1-5-8 per lb.	52,167 3 10
Gudar 8,139 lbs. 1 oz. at As. 8-4 per lb. .	4,239 1 0
Nimbudar 15,006 lbs. at As. 5-3 per lb. .	4,923 13 6
Basin Refuse 26,346 lbs. 4 ozs. at As. 6-3 per lb.	10,291 8 0
Total	71,621 10 4

38.

Rate of depreciation.

	Per cent.	Amount written off. Rs. A. P.
Buildings	5	15,422 0 0
Plant and Machinery	10	24,320 0 0
Total		39,742 0 0

Charges on account of repairs both to Buildings and Plant and Machinery	6,880 4 10½
---	-------------

47.

Quantity sold in

	Silk. lbs.	Silk wastes. lbs.
Kashmir	13,871	538
India	130,059	87,221
Europe	50	56,820
Bangkok and Rangoon	3,615	...

50.

Average rates obtained in

	Silk. Rs. A. P.	Silk wastes. Rs. A. P.
Kashmir	5 6 3	0 8 6
India	5 8 8	0 3 4
Europe	6 0 0	1 3 0
Bangkok and Rangoon	5 13 8	...

NOTE.—The rates shown as realized in Europe are exclusive of Home charges but inclusive of freight charges which work out to about As. 3 per pound.

Statement showing works expenditure incurred on reeling silk for the year 1937-38.

Quantity of silk reeled.	Total works expenditure on reeling.	Total cost of cocoons.	Cost of reeling 1 lb.	Cost of cocoons per lb.	Total.
lbs.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
169,370	3,13,659 15 9	5,44,487 0 0	1 13 8	3 3 5	5 1 1

Details of works cost of reeling one pound under different Heads.*

Name of Head.	Rs. a. p.
Cost of cocoons	3 3 5
Cost of labour	0 15 7
Cost of power, light and fuel	0 2 10
Cost of supervision and management	0 6 5
Cost of repairs and maintenance	0 5 3
Other expenses	0 1 9
Total	5 1 1

NOTE.--For the year 1937-38 the silk-worm rearers have so far been paid only at the rate of Rs. 14-6 per maund and the labour at rates inclusive of 10 per cent. cut only.

(11) *Telegram No. 1312, dated the 30th November, 1938, from the Tariff Board, to the Director of Sericulture, Jammu (Kashmir).*

Kindly post immediately complete figures for Jammu for 1937-38.

(12) *Letter No. 718, dated the 5th December, 1938, from the Director of Sericulture, Jammu Province, Jammu.*

With reference to your telegram No. 1312, dated the 30th November, 1938, I have the honour to enclose herewith, in quadruplicate, necessary statements giving the information asked for in respect of the year 1937-38. The financial year of the State having closed only lately, the accounts have not yet been compiled in the Accountant General's Office wherefrom the Balance Sheet of the Department is issued. The figures have therefore been worked out from our own records and are subject to verification.

I am also submitting herewith, as per statements F (2 pages) and G, my estimate of the income, per acre of irrigated and unirrigated land, which a farmer in this Province derives from other agricultural crops. The statement of the cost of mulberry culture and income therefrom has not been worked out because, as the Board has seen, in the special system in force here, there is no such cultivation in this Province to the exclusion of other crops.

* In this works cost, the value of bye-products, interest on capital, value of mulberry leaf from State lands, have not been taken into account.

I had also promised, in the recent meeting at Calcutta, to supply information, so far as it is available in this Office, regarding the rates of Customs Duty, full and preferential, levied in Great Britain, on Silk and Artificial Silk. A printed pamphlet* issued by His Majesty's Commissioners of Customs and Excise, giving the necessary information, is enclosed herewith for favour of perusal. It is requested that the pamphlet may kindly be returned when done with. The latest advice, received by us last month, in this connection, indicates that 'the Preferential rate of Import Duty on waste is now 5*d.* per lb. and upon raw silk 1*s.* 3*d.* per lb. as against, up to 20th August, 4*d.* and 1*s.* per lb.'. Confirmation of this, however, is still lacking.

As regards the question of Customs Duties levied in the State on Raw Silk and Silk Manufactures imported from British India and other Indian States, the same is receiving the attention of His Highness's Government. The Hon'ble Prime Minister happens to be out of Station at present. When he returns, it is hoped, the views of His Highness's Government in the matter will duly be communicated to you.

1. The detail of figures for the year 1937-38 is as follows:—

Year.	Rearers.	Rearing.		Reeling.		Average daily attendance.	
		Girdawars or temporary supervisors.	Lambardars.	Miscellaneous Labour and carriage contractors.	Filature Total labour.	Cocoon sorters.	Total.
1937/38	[8,406	20	870	100	9,405	169.54	21.70 101.2

Apart from the above there is the permanent staff whose strength continues to be 117.

2. Expenditure for the year amounts to Rs. 2,76,792 according to the entries made in our departmental books.

3. The requisite information is given below:—

Cocoons produced in Mds.	Value in Rs. According to cost of production (i.e., Rs. 24.2.8 per Md. excluding cost of leaf supplied free from Government lands).	Silk reeled in lbs.	Value in Rs. According to average sale rate (i.e., Rs. 5.7.1 per lb.)
8,695 (lbs. 712,990)	2,10,013	40,492	2,20,386

4. The average yield of raw silk per green maund of cocoons reeled during the year has been as follows:—

	lbs. oz. d.
Cross Chinoso	6 7 3
White	5 2 15

19. The number of plants distributed during the year 1938 is 14,321.

21. Average yield per ounce of seed during the year 1937-38 has been 43 Srs. 8 Chks. (89 lbs. 3 ozs.) in this Province.

* Not printed.

22. The experiment of rearing Bi-voltino race was again conducted this year. The results were not satisfactory. Five ounces of seed reared gave only 1 maund 28 seers of cocoons making an average of 13 seers 9 chtk. (27 lbs. 13 ozs.) per ounce. The quality of cocoons too was very poor.

23. Please see statements A, B and C attached.

	lbs.
27. The total quantity of silk reeled	40,492
The total quantity of silk wastes produced	
including Basin Refuse	29,306

For average sale rates please see statement D attached.

29. The works expenditure, including depreciation but excluding the value of wastes sold, during the year amounts to Rs. 42,505. For details please see statement E attached.

36. The depreciation amount for the year, as worked out in this office, is Rs. 3,580 in case of Buildings and Rs. 1,660 in case of Machinery and Plant, making a total of Rs. 5,240 out of which the expenditure incurred on repairs which amounts to Rs. 300 has to be deducted. The balance, i.e., Rs. 4,940 is debitable half to reeling and half to rearing. The rates at which depreciation has been worked out are the same as before, i.e., 5 per cent. on Buildings and 10 per cent. on Machinery.

47. The information for the year 1937-38 is given below:—

Local Sales.		Sales in India.		Sales in Europe.	
Silk in lbs.	Silk wastes in lbs.	Silk in lbs.	Silk wastes in lbs.	Silk in lbs.	Silk wastes in lbs.
375	9	38,380	10,610	50	13,750

50. Prices obtained in Europe for our silk wastes during the year are embodied in the statement enclosed in answer to Question No. 27.

72. The Balance Sheet for the year has not been compiled yet.

STATEMENT A.—Para. No. 178, Table LXXX, 1937-38.

	Rs.	
Expenditure incurred on account of cost of cocoons		1,07,414*
Add value of mulberry leaf supplied free from Government lands at the rate of As. 8 per lb. of silk or 14 lbs. of cocoons for producing 8,695 Mds. — $\frac{8,695 \times 82 \times 1}{14 \times 2}$ = . . .		25,464
Total cost of cocoons		<u>2,22,878</u>
	Rs.	Percentage.
Total cost of cocoons	2,22,878	75.84
Cost above cocoons including Pension contribution	71,013	24.16
Total	<u>2,93,896</u>	

* This does not include the extra payment of about Rs. 13,000 made to rearers during 1937-38 on crop of year 1936-37, mentioned in the 2nd footnote to statement of cost of raw silk on page 20 of our replies to the general questionnaire.

Detail of Rs. 1,97,414 is given below:—

	Rs.
1. Price paid to rearers (excluding the extra payment of about Rs. 13,000 paid for crop, 1936-37)	1,31,950
2. Rearing requisites and temporary technical supervision	971
3. Price of silk-worm seed	22,275
4. Expenditure incurred on mulberry plantations	649
5. Rewards	100*
6. Contingencies and House Rent	728
7. Half salary	6,976
8. Half office and full mulberry	15,694
9. „ Postage and Telegrams	576
10. Fire Insurance	754
11. Refund	68
12. Customs Duty	6,444
13. Sorting and Baling charges	2,670
14. Travelling Allowance	4,359
15. Stationery	106
16. Depreciation	2,470
17. Pension Contribution	624
Total	1,97,414

STATEMENT B.—Para. No. 179, Table LXXVI.—Works cost of producing one pound of raw silk in our Filatures during the year 1937-38.

Cocoons reeled—Mds. 6,921 (Lbs. 567,522).

Silk produced—Lbs. 40,492.

Rendita cocoons to one lb. silk = $6,921 \times 82 \div 40,492 = 14.01$ lbs., say, for facility of calculations 14 lbs. green.

Price per lb. of cocoons (including cost of leaf supplied free from Government lands) Rs. 2,22,878 $\div 8,695 \times 82 = 5$ annas.

	Rs. A. P.
(1) Cost of 14 lbs. of cocoons 14×5	-4 6 0
(2) Labour (Rs. 31,834)	=0 12 7
(3) Power Rs. 955-13-9, Light Rs. 87-12-6 and Fuel Rs. 7,849-11-6	=0 3 6
(4) Supervision (Establishment Rs. 14,076, Half Salary Rs. 6,976 and Pension contribution Rs. 624)	0 8 6
(5) Other charges Rs. 6,144-6-6*	0 2 5
Total	6 1 0
Total reeling charges above cost of cocoons	
Nos. (2) to (5)	1 11 0
Percentage of cost of cocoons to total cost of Rs. 6-1 : 100 : Rs. 4-6	-72.16

* Reeling Baling—

	Rs. A. P.
Baling material, etc.	2,274 8 0
Water Tax	1,157 14 6
Commission to Silk Agents	76 0 0
Postage	576 0 0
Fire Insurance	237 0 0
Type-writer	237 0 0
Customs Duty	381 0 0
Stationery	106 0 0
Refund	68 0 0
Travelling Allowance	611 0 0
Contingencies	420 0 0
Total	6,144 6 6

STATEMENT C.—Para. No. 180, Table LXXXII.—Estimated cost of producing one pound of silk in our existing Filatures.

No. of Basins 107
 Rendita green cocoons per pound of silk 14 lbs.

Name of Head.	Expenditure 1937-38.	Cost per lb. at Rs. 14-6-0 per Md.	Remarks.
Cost of cocoons per lb.	2,22,878 0 0	0 5 0	
Cost of 14 lbs. cocoons including carriage	...	4 6 0	
Stifling at 2 pies .	...	0 0 2	Same remarks as in statement sent last.
Fule, Power and Light	8,893 5 9	0 3 6	
Labour	31,834 0 0	0 12 7	
Supervision	21,676 0 0	0 8 6	
Other charges vide Table LXXXI .	6,144 6 6	0 2 5	
Total .	...	6 1 2	
Deduct value of wastes produced per lb. of silk	...	0 11 3	
Net Cost	...	5 5 11	
Depreciation charges	2,470 0 0	0 1 0	
Interest on working capital at 7½ per cent. (Rs. 5,510-10)	...	0 2 2	
			Rs. ½th silk 10,123 lbs. . . . 17,754 ½th cocoons 2,174 mds. . 55,719 Total . 73,473
Profit at 8 per cent. on fixed capital Rs. 1,42,746 .	...	0 4 9	
Fair selling Price	...	5 13 10	

STATEMENT D.—Showing the detail of sales of silk and silk wastes of various qualities during 1937-38.

Serial No.	Kind.	Sales in India.			Sales in Europe.			Local Sales.		
		Quantity.	Value.	Average rate.	Quantity.	Value.	Average rate.	Quantity.	Value.	Average rate.
		lbs. ozs.	Rs. A. P.	Rs. A. P.	lbs.	Rs. A. P.	Rs. A. P.	lbs.	Rs. A. P.	Rs. A. P.
1	Neel silk at various rates	1,677 7	9,718 7 0	5 12 0	50	315 12 5	6 5 0	..	..	..
2	Neel silk (odds and ends)	23 0	115 0 0	5 0 0	..	..	..	..	..	..
3	No. I silk at various rates	21,290 10	1,19,177 15 6	5 9 6	..	..	..	355	1,812 9 6	5 1 8
4	No. II silk at various rates	12,637 9	63,789 6 6	5 4 9	..	..	..	20	103 12 0	5 3 0
5	Puda silk	1 4	3 12 0	3 0 0	..	..	..	..	..	..
6	Dopost silk at various rates	2,500 8	7,720 4 0	3 1 1	..	..	..	..	..	..
7	Cut silk at various rates	696 0	2,391 6 0	3 6 5	..	..	..	..	..	..
8	Kitchies at various rates	160 0	561 8 0	3 8 1	..	..	..	..	..	..
9	Samakh	..	..	..	13,250	17,535 6 9	1 5 3	2 (Sample)	3 0 0	1 8 0
10	Gudar	..	..	..	500	260 6 8	0 8 4	1 "	0 9 0	0 9 0
11	Nimtar Bandha	69 0	213 6 0	3 1 5	..	..	..	..	..	..
12	Khokharu	9,000 0	4,195 5 0	0 7 5	..	..	..	2 (Sample)	0 14 6	0 7 3
13	Patri	..	..	..	..	..	..	1 "	0 6 0	0 6 0
14	Fluff	1,001 0	437 15 9	0 7 0	..	..	..	1 "	0 7 0	0 7 0
15	Cut cocoons	340 0	698 2 0	1 4 8	..	..	..	2 "	2 14 0	1 7 0

STATEMENT E.—Showing details of Rs. 42,505 on account of works expenditure during 1937-38.

	Rs.	A.	P.	Rs.
(1) Reeling Baling:-				
Filature labour	31,834	0	0	
Power	955	13	0	
Light	87	12	6	
Baling material	2,274	8	0	
Water Tax	1,157	14	6	
				36,310
(2) Fuel				7,850
(3) Half office and full filature				14,076
(4) Half salary				6,978
(5) „ Postage and Telegrams				576
(6) Fire Insurance				237
(7) Contingencies				657
(8) Customs Duty				381
(9) Stationery				106
(10) Refund				63
(11) Pension Contribution				624
(12) Travelling Allowance				611
(13) Commission to Silk Agents				76
(14) Depreciation				2,470
				<u>71,018</u>
Deduct value of silk wastes				28,513
Not				<u>42,505</u>

STATEMENT F.—Cost of alternative crops versus Mulberry plantations in one acre of land.

(a) Irrigated.

Spring Crop—Wheat.

Expenditure:-	Rs.	A.	P.
1. Seed for sowing 24 srs. at Rs. 2-8 per md.	1	8	0
2. Repairs of implements	0	5	0
3. Ploughing charges	0	7	3
4. Salt, Oil, Grains and Medicines for oxen	0	10	5
5. Land Revenue	3	0	0
6. Fencing charges			Nil
7. Labour wages at the time of harvest season for reaping crops	3	0	0
8. Cost of Bran (Bhoosa)	1	9	7
9. Cost of separating grains from straws	0	12	0
10. Payment to village Kamees such as Barber, Washerman, Jhiwar and Priest, etc.	0	5	0
11. Carriage charges from fields to the farmer's house	0	9	0
12. Conveyance charges, Octroi and marketing charge	1	8	0
			<u>13 10 3</u>
Total	13	10	3

STATEMENT F.—Cost of alternative crops versus Mulberry plantations in one Acre of land—contd.

Receipts—		Rs.	A.	P.
Outturn:—6 Mds. of wheat at Rs. 2-8 per Md.		15	0	0
Bran (Bhoosa) approximately		4	0	0
	Total	19	0	0
Net Profit		5	5	9

(a) Irrigated.

Autumn Crop—Rice.

Expenditure—		Rs.	A.	P.
1. Seed for sowing 18 Srs. at Rs. 2-8 per Md.		1	2	0
2. Plantation charges		4	0	0
3. Coolies engaged for watering		1	0	0
4. Repairs of implements		0	5	0
5. Ploughing charges		0	7	3
6. Cost of Salt, Oil, Grains, etc., and Medicines for oxen		0	10	5
7. Land Revenue		3	0	0
8. Fencing		Nil		
9. Labour wages at Harvest time for reaping crops		3	0	0
10. Cost of fodder		1	9	7
11. Cost of crushing the straw with grains		0	8	0
12. Cost of separating grains from straw		3	12	0
13. Conveyance charges from fields to farmer's house		2	13	0
14. Village servants such as Barber, Jhiwar and Washerman, etc.		0	5	0
15. Conveyance charges to market-place		7	8	0
	Total	30	0	3
Receipts--		Rs.	A.	P.
1. Five Manies or 30 Mds. at Rs. 2-8 per Md.		75	0	0
2. Straw (approximately)		6	0	0
	Total	81	0	0
Net Profit		50	15	9
Total Profit for the year		56	5	6

STATEMENT G.—Cost of alternative crops versus Mulberry plantation in one Acre of land.

(b) Unirrigated.

Spring Crop—Wheat.

Expenditure—		Rs.	A.	P.
1. Seed for sowing—24 Srs. at Rs. 2-8 per Md.		1	8	0
2. Cost of repairs of implements		0	5	0
3. Ploughing charges		0	7	3
4. Cost of Salt, Oil, Grains, etc., and Medicines for oxen		0	10	5
5. Land Revenue		1	8	0
6. Fencing charges		Nil		
7. Labour wages for reaping crops at the time of harvest season		3	0	0
8. Cost of Bran (Bhoosa) for oxen		1	9	7
9. Cost of separating grains from straws		0	12	0
10. Village Kamees		0	5	0
11. Conveyance charges from field to the farmer's house		0	9	0
12. Conveyance charges from farmer's house to the market, Octroi and market charges		1	8	0
	Total	12	2	3

STATEMENT C.—Cost of alternative crops versus Mulberry plantation in one Acre of land—contd.

Receipts—	Rs.	A.	P.
Outturn—6 Mds. of wheat at Rs. 2-8	15	0	0
Bran (Bhoosa)	4	0	0
Total	19	0	0
Net Profit for six months	6	13	9

Autumn Crop—Maize.

Expenditure—	Rs.	A.	P.
1. Seed for sowing- 10 Srs. at Rs. 2 per Md.	0	8	0
2. Cost of repairs of implements	0	5	0
3. Ploughing charges	0	7	3
4. Cost of Salt, Oil, Grains and Medicines for oxen	0	10	5
5. Land Revenue	1	8	0
6. Fencing, etc.			Nil
7. Labour wages at the time of harvest season	1	0	0
8. Cost of fodder for oxen	1	9	7
9. Cost of separating grains	2	0	0
10. Village Kamees	0	4	0
11. Conveyance charges to the market place	3	0	0
Total	11	4	3
Receipts—	Rs.	A.	P.
1. Outturn—12 Mds. at Rs. 2 per Md.	24	0	0
2. Straw	6	0	0
Total	30	0	0
Net Profit	18	11	9
Total Profit for the year	25	9	6

(13) *Demi official letter No. 1343, dated the 6th December, 1938, from the President, Tariff Board, to M. G. Koti Bhaskar, Esq., Director of Industries, Kashmir, Jammu.*

On the last occasion the Tariff Board was supplied with the cost of production figures for various kinds of handwoven goods in Kashmir which is contained in Appendix C of the Report. The Board would like to have similar statement of the present types of cloths manufactured in the State for the purposes of comparison.

(14) *Letter No. 1167/D. O., dated the 20th December, 1938, from M. G. Kotibhaskar, Esq., Director of Industries, Kashmir, to the President, Tariff Board.*

Kindly refer to your D. O. letter No. 1343, dated the 6th December, 1938. The statement showing the cost of production figures for the different kinds of handwoven clothes is sent herewith as desired. I regret that the details pertaining to gown cloth are not available and have not therefore been supplied.

Statement showing cost of production for various kinds of handwoven silk goods.

Class of cloth typical.	Dimen- sions.	Material.	Raw Material.	Winding and twisting.	Dyeing.	Weaving.	Other charges.	Total.	Sale Price.	Produc- tion per day.	Weavers' earning per day.
	Yds.		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Yds.	Rs. a. p.
1 Kashmir Silk plain sarees.	45" × 10	Kashmir silk	5 10 0	1 2 0	0 10 0	1 9 0	0 5 0	9 4 0	9 6 0	7	1 1 6
2 Dupettas	54" × 144	Spun silk	185 0 0	5 8 0	9 0 0	11 0 0	4 8 0	215 0 0	222 0 0	7	0 8 6
3 Shirting and suitings.	27" × 160	Kashmir silk	80 0 0	2 8 0	4 6 0	7 8 0	1 2 0	93 8 0	98 8 0	12	0 9 0
4 Handkerchiefs	24" × 24"	Do.	5 0 0	1 2 6	1 2 0	2 5 0	0 4 6	9 14 0	1 0 0	14 doz.	1 2 6

(15) *Letter No. 1212, dated the 19th December, 1938, from the Director of Sericulture, Jammu Province, Jammu.*

I have the honour to enclose herewith, in quadruplicate, the Statements, as per detail below, embodying the information asked for in respect of Imports into the State of Raw Silk, Silk manufactures, etc., for the last 5 years:—

- (1) Statement showing Imports of Raw Silk, Silk manufactures, etc., under Bond from United Kingdom and Foreign Countries, for the last 5 years.
- (2) Statement showing Imports of Raw Silk, Silk manufactures, etc., from British India and other Indian States into Jammu and Kashmir State, for the last 5 years.
- (3) Statement showing Imports of Silk Piecegoods and Silk Yarn from Central Asia into Kashmir (on which duty was charged by the State) for the last 5 years.
- (4) Statement showing Silk Piecegoods and Silk Yarn of Central Asia exported through Jammu and Kashmir State for the last 5 years.

The information has been collected from various Customs Posts in the State by putting on extra staff for this work and is more or less complete as will appear from the Inspector, Customs and Excise, Jammu's letter, dated Sunday the 18th December, 1938, copy enclosed.

The Hon'ble Prime Minister is expected back on the 22nd instant when the views of His Highness' Government regarding the imposition of duties on such Imports in the State will be communicated to you.

Copy of a letter, dated Sunday the 18th December, 1938, from the Inspector Customs and Excise, Jammu, to the Director of Sericulture, Jammu.

Herewith 7 copies of Bonded imports. Kindly acknowledge. In the statement of unbonded imports figures for Manawar Division have not been included as they are still due from Deputy Inspector, Manawar. The Imports for that Division are, however, quite insignificant. We do not realize more than 150 a year, on such imports in Manawar Division.

नमो भगवते वासुदेवाय

Statement showing imports of Raw Silk, Silk manufactures, etc., under bond from United Kingdom and Foreign Countries for the last 5 years.

Year.	Name of Province.	Silk Yarn Foreign.		Artificial Silk Yarn.		Staple Fibre Yarn.		Raw Silk Foreign.		Silk Piecegoods Foreign.	
		Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.
1890-91.	Jammu . . .	Lbs.	Rs.	Lbs.	Rs.	Lbs.	Rs.	Lbs.	Rs.	Lbs.	Rs.
	Kashmir . . .	2,929	7,087	2,500	4,278	..	..	..	..	38,811	1,71,769
	Total . . .	29,550	34,616	1,76	266	359	279	..	..	105,919	1,29,967
	GRAND TOTAL . . .	32,478	42,603	2,676	4,544	359	279	..	..	144,730	3,01,736
1891-92.	Jammu . . .	196,433	3,83,866	(Yearly)	..	..	..	..	..	..	..
	Kashmir . . .	6,645	25,571	5,400	5,949	..	..	..	..	7,331	31,935
	Total . . .	32,602	47,310	1,974	2,626	116	63	..	..	28,356	65,269
	GRAND TOTAL . . .	30,247	72,881	7,374	8,575	116	63	..	..	35,687	1,03,224
1892-93.	Jammu . . .	115,523	5,55,190	(Yearly)	..	..	..	..	..	..	..
	Kashmir . . .	836	2,553	3,400	3,664	..	..	..	..	1,949	12,708
	Total . . .	25,552	40,218	1,465	2,148	1	1	875	1,525	18,755	46,496
	GRAND TOTAL . . .	26,388	42,771	4,865	5,812	1	1	875	1,525	20,704	59,204
		117,363	2,27,583	(Yearly)	..	..	..	..	..	..	..

NOTE.—Approximate weight of Silk Piecegoods and Artificial Silk Piecegoods has been given as Yardage or pieces are shown in almost all the Invoices.

Statement showing imports of Raw Silk, Silk manufactures, etc., under bond from United Kingdom and Foreign Countries for the last 5 years—contd.

Year.	Name of Province.	Silk Yarn Foreign.		Artificial Silk Yarn.		Staple Fibre Yarn.		Raw Silk Foreign.		Silk Piecegoods Foreign.	
		Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.
1893-94.		Lbs.	Rs.	Lbs.	Rs.	Lbs.	Rs.	Lbs.	Rs.	Lbs.	Rs.
	Jammu . . .	180	420	2,000	1,888	750	957	..	..	1,056	5,692
	Kashmir . . .	24,202	1,04,859	1,858	2,593	1,152	1,140	137	198	17,312	33,475
	Total . . .	24,382	1,05,279	3,858	4,481	1,902	2,097	137	198	18,368	39,167
GRAND TOTAL . . .		110,933	2,41,679	(Yearly).							
1894-95.		Lbs.	Rs.	Lbs.	Rs.	Lbs.	Rs.	Lbs.	Rs.	Lbs.	Rs.
	Jammu . . .	1,070	2,218	1,000	849	9,287	9,967	..	..	3,077	15,786
	Kashmir . . .	33,230	40,930	2,890	3,185	987	544	237	399	13,434	31,271
	Total . . .	34,300	43,148	3,890	4,035	10,274	10,511	237	399	16,511	47,057
GRAND TOTAL . . .		106,264	1,75,280	(Yearly).							

NOTE.—Approximate weight of Silk Piecegoods and Artificial Silk Piecegoods has been given as Yardage or pieces are shown in almost all the Invoices.

Statement showing imports of Raw Silk, Silk manufactures, etc., under bond from United Kingdom and Foreign Countries for the last 5 years—contd.

Year.	Name of Province.	Silk and Cotton Piece-goods Mixture.		Art. Silk Piecegoods.		Mixture Art. Silk.		Raw Spun Foreign.	
		Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.
1890-91.	Jammu	Lbs. . .	Rs. . .	Lbs. . .	Rs. . .	Lbs. . .	Rs. . .	Lbs. . .	Rs. . .
	Kashmir	624	761	4,232	11,834	333	877	2,260	3,422
	Total	624	761	4,232	11,834	9,073	18,687	2,260	3,422
	GRAND TOTAL								
1891-92.	Jammu	1,000	1,867	7,282	10,900	392	400	7,752	12,737
	Kashmir	1,000	1,867	7,282	10,900	392	400	7,752	12,737
	Total	1,000	1,867	7,282	10,900	784	800	15,504	25,474
	GRAND TOTAL								
1892-93.	Jammu	12	21	14,610	16,821	1,379	1,736	2,527	4,123
	Kashmir	12	21	14,610	16,821	1,379	1,736	2,527	4,123
	Total	24	42	29,220	33,642	2,758	3,472	5,054	8,246
	GRAND TOTAL								

NOTE.—Approximate weight of Silk Piecegoods and Artificial Silk Piecegoods has been given as Yardage or pieces are shown in almost all the Invoices.

Statement showing imports of Raw Silk, Silk manufactures, etc., under bond from United Kingdom and Foreign Countries for the last 5 years—contd.

Year.	Name of Province.	Silk and Cotton Piece-goods Mixture.		Art. Silk Piecegoods.		Mixture Art. Silk.		Raw Spun Foreign.	
		Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.
1893-94.	Jammu	Lbs.	Rs.	Lbs.	Rs.	Lbs.	Rs.	Lbs.	Rs.
	Kashmir . . . . .	..	..	..	..	32,275	49,555	4,530	7,270
	Total	12	30	20,969	29,164	4,500	4,438	..	..
	GRAND TOTAL	12	30	20,969	29,164	36,775	53,993	4,530	7,270
1894-95.	Jammu . . . . .	..	..	..	..	16,165	33,309	1,620	2,897
	Kashmir	512	457	20,385	31,171	2,380	2,296	..	..
	Total	512	457	20,385	31,171	18,545	35,605	1,620	2,897
	GRAND TOTAL	.	.	.	.	.	.	.	.

NOTE.—Approximate weight of Silk Piecegoods and Artificial Silk Piecegoods has been given as Yardage or pieces are shown in almost all the Invoices.

Imports of Raw Silk, Silk manufactures, etc., from British India and other Indian States into Jammu and Kashmir State for the last 5 years.

Year.	Name of Province.	Art. Silk Spun Yarn.		Silk Yarn.		Art. Silk Piecegoods.		Silk Piecegoods.	
		Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.
1890-91.	Jammu	Lbs. 85	Rs. 125	Lbs. 102	Rs. 367	Lbs. 2,690	Rs. 6,537	Lbs. 174	Rs. 1,746
	Kashmir . . . . .	..	..	..	..	299	496	200	1,393
	Total	85	125	102	367	2,989	7,053	374	3,139
1891-92.	Jammu	155	234	43	172	2,559	6,250	196	1,992
	Kashmir . . . . .	..	..	12	22	265	596	..	..
	Total	155	234	55	194	2,824	6,846	196	1,992
1892-93.	Jammu	37	66	29	206	2,618	6,453	72	891
	Kashmir . . . . .	..	..	67	122	293	353	135	627
	Total	37	66	96	328	2,911	6,811	207	1,518
1893-94.	Jammu	69	106	15	78	2,147	4,717	83	1,000
	Kashmir . . . . .	..	..	207	2,111	40	119	181	673
	Total	69	106	222	2,189	2,187	4,836	264	1,673
1894-95.	Jammu	113	172	5	27	1,685	4,206	48	546
	Kashmir . . . . .	..	..	230	1,329	164	511	223	674
	Total	113	172	235	1,356	1,849	4,717	271	1,220

Imports of Raw Silk, Silk manufactures, etc., from British India and other Indian States into Jammu and Kashmir State for the last 5 years—contd.

Year.	Name of Province.	Raw Silk.		Mixed Silk.		Staple Fibre.		Total.	
		Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.
1890-91.	Jammu	Lbs. 26	Rs. 53	Lbs. 41	Rs. 122	Lbs. 9	Rs. 11	Lbs. 3,127	Rs. 8,981
	Kashmir . . . . .	..	..	..	..	..	..	499	1,889
	Total	26	53	41	122	9	11	3,626	10,870
1891-92.	Jammu	67	140	49	146	12	19	3,081	8,953
	Kashmir . . . . .	..	..	..	..	..	..	277	618
	Total	67	140	49	146	12	19	3,358	9,571
1892-93.	Jammu	9	19	5	13	..	..	2,770	7,653
	Kashmir . . . . .	..	..	..	..	..	..	495	1,102
	Total	9	19	5	13	..	..	3,265	8,755
1893-94.	Jammu	9	19	1	4	6	8	2,330	5,932
	Kashmir . . . . .	..	..	..	..	..	..	428	2,903
	Total	9	19	1	4	6	8	2,758	8,835
1894-95.	Jammu	37	68	3	12	9	12	1,900	5,043
	Kashmir . . . . .	..	..	..	..	..	..	617	2,514
	Total	37	68	3	12	9	12	2,517	7,557

Statement showing Imports of Silk Piecegoods and Silk Yarn from Central Asia into Kashmir (on which duty was charged by the State) for the last five years.

Year.	Silk Piecegoods.		Silk Yarn.	
	Quantity.	Value.	Quantity.	Value.
		Rs. a. p.		Rs. a. p.
1890-91	3½ lbs.	16 15 0	833 lbs.	2,241 12 0
1891-92	30 "	106 8 0	731 "	2,115 6 0
1892-93	27 "	41 8 0	7 "	15 0 0
1893-94	1 "	4 4 0	Nil	Nil
1894-95	6 "	1 14 0	32 lbs.	93 0 0
Total	67½ "	171 1 0	1,603 lbs.	4,465 2 0

Statement of Silk Piecegoods and Silk Yarn of Central Asia Exported through Jammu and Kashmir State for the last 5 years.

Year.	Silk Piecegoods.		Silk Yarn.	
	Quantity.	Value.	Quantity.	Value.
		Rs. a. p.		Rs. a. p.
1890-91	2,210 lbs.	11,221 4 0	91,140 lbs.	2,91,400 8 0
1891-92	4,003 "	12,541 14 0	137,225 "	6,73,851 7 0
1892-93	4,017 "	26,864 12 0	105,262 "	3,19,224 0 0
1893-94	3,558 "	18,905 4 0	102,639 "	4,18,480 4 0
1894-95	1,550 "	7,535 7 0	69,973 "	2,10,841 2 0
Total	15,338 lbs.	77,068 9 0	506,239 lbs.	19,13,806 5 0

(16) *Letter No. P. B. D-767/38, dated the 23rd December, 1938, from the Government of H. H. The Maharaja of Jammu and Kashmir, Jammu.*

I forward herewith in confirmation copy of a telegram which I sent you this morning. The telegram is self explanatory and it will be clear from it that His Highness' Government will not, if protection is granted to the silk industry, place Indian raw silk and silk manufactures at a disadvantage as compared with the position before protection was granted to this industry.

PB-3367 Reference Chief Secretary's evidence regarding feasibility of removal of Customs import duty on Indian raw silk and silk manufactures when imported into the State. His Highness' Government are prepared to consider removal of the additional import duty imposed by them in 1934 when an additional protective duty was imposed at British Indian ports on foreign raw silk and silk manufactures. This means that His Highness' Government are prepared to forego all additional duty on such imports of raw silk and silk manufactures from British India and other Indian States into Kashmir as have received protection in 1934 or will fall within range of protection now under consideration.

7. H. E. H. The Nizam's Government.

(1) *Letter No. 6433, dated the 19th July, 1938, from the Director, Commerce and Industries Department, Hyderabad, to the Secretary, Tariff Board.*

With reference to your letter No. 510, dated the 14th May, 1938, addressed to the Secretary to Government, Commerce and Industries Department, Hyderabad, I have the honour to forward herewith six copies of replies to the Sericultural Enquiry (Handloom Industry) Questionnaire as desired therein.

(HANDLOOM INDUSTRY).

Questionnaire for Local Governments.

No. of looms.	Males.	Females.	Children.	Grand total of weavers population.
1. (a) 97,005	143,356	120,644	142,881	406,881
(i) 4,183	5,183	4,184	4,941	14,308
(ii) 70,067	103,630	87,345	103,455	294,430
(iii) 23,355	34,543	29,115	34,485	98,143

N.B.—The above figures are taken from the handloom survey conducted during 1340 Fasli. (1930-31 A. D.)

(b) Not to any appreciable extent.

2. The silk weavers obtain their raw materials from yarn merchants who are found in almost all the weaving centres and these merchants in their turn get their supply from bigger merchants in Secunderabad or direct from Bombay and Bangalore. Raw silk, spun silk, and art. silk are all imported either from Bombay or Bangalore. Gold thread is imported from Surat and Benares. Small quantities of French gold thread and Bangalore gold thread are also imported.

Rs. A. P.

Raw silk B. G.	4	5	8	per lb. (Past five years' average taken).
Spun silk "	3	10	3	" "
Artificial silk "	0	14	2	" "
Gold thread (superior) "	20	1	1	per marm " "
Gold thread (inferior) "	14	3	0	" "

3. Staple fibre has just started coming in the State. Particulars regarding actual consumption are not available as Customs returns do not make any mention of this material. Source of supply is from Bombay market. Price per lb. B. G. Rs. 1-4-3.

4. It is too early to express an opinion in this respect.

5. (i), (ii), (iii), (iv).—In most places all these operations are done by weavers themselves but in some places by silk dealers also.

6. Foreign silk from China and Japan is as a rule used for warp; and for weft mostly Mysore, Kashmir and Bengal charka silk is used.

7. The industry even now is mostly financed by the merchants who supply raw materials to the weavers and purchase back the finished articles from them either for local sale or export. The weavers thus may be said to be under the control of the Sowkar merchants. The fact whether the weavers get a fair deal under this system depends upon the condition of the market. During marriage seasons particularly the weaver gets good wages for his work. But when the market is dull, he is to go with very meagre wages. There are no suggestions to make, for under the existing condition it is difficult to replace the Sowcar merchants by any other agency.

8. (1) It is now made to order.
- (2) This kind of cloth was never manufactured in the State.
- (3) These are made to order.
- (4) Large number of looms are engaged on sarrees.
- (5) It is manufactured in large quantity.
- (6) These are not manufactured in the State.
- (7) These are manufactured in fairly large quantities.
- (8) These are manufactured to some extent.
- (9) These are manufactured to some extent.
- (10) These are manufactured to some extent.
- (11) These are made to order.

Besides the abovementioned fabrics, Himroo, Mashroo, Patola, Pitambers, solid Border sarrees, cholkhans, rumals, shamias, Tapta cloth, susi, muktas and madi panchas are also produced. The abovementioned classes of cloth are still woven in the Dominions. Suitings, shirtings, sarees and cholkhans are most subjected to foreign (British India) competition.

9. From Indian raw silk 375,000 yards valued B. G. Rs. 2,54,000.
- From foreign raw silk 756,000 yards valued B. G. Rs. 7,07,000.
- From foreign spun silk 180,000 yards valued B. G. Rs. 1,80,000.
- From art. silk 980,000 yards valued B. G. Rs. 3,67,000.
- Gold thread Indian valued B. G. Rs. 342,000.

10, 11, 12. Please see cost sheets marked 'A'.

13. Rupees sixteen to eighteen lakhs including the value of Gold thread.

14. Spun silk is used for saree borders, shirtings, suitings, cholkhans borders, etc.

15. Weavers obtain their silk supply mostly through middlemen and seldom through the reeler.

16. The merchants, who supply raw materials to weavers, do business in cloth which they take back from weavers after paying wages to them. This holds good in respect of nearly two-thirds of the total output of silk cloth in the State. To the extent of the remaining one-third, silk is supplied by the silk dealers to weavers on a month's credit and if weavers fail to pay within that period, they are charged interest at the rate of 12 per cent. per annum calculated from the date of issue. In all such cases the merchants charge Rs. 1-8 to Rs. 2 more per Thakdi (3 lbs. raw silk) than for cash sales.

17. There is no system here of silk merchants acting as importers' agents. They purchase their materials from wholesale merchants in Bombay. In the case of small weaving centres they sell it to retailers who in turn supply it to weavers, while in the case of big weaving centres they sell it to retailers and also supply direct to weavers.

18. Charka silk of Mysore, Kashmir and Bengal which is mostly used for weft, is considered inferior to foreign silk and that is the reason why the latter is being consumed in large quantity. The Filature silk of Indian origin is regarded by the merchants and weavers as superior to foreign silk but the cost being higher, it is not much used.

19. Silk yarn is neither sorted nor graded by any agency in the State. If sorting and grading were introduced in the place of origin, there is hope that the weavers would take advantage of it provided the price is competitive.

20. Mostly in big weaving centres, such as, Narayanpet, Siddipet, Armour, etc., silk is supplied by the merchants and the finished fabrics taken back after paying the wages to weavers which are usually fixed beforehand for specific kinds of goods.

21. Present position in this respect is much the same as before. No special efforts are made by the silk producing centres to advertise the merits and varieties of their silk over here.

22. There has not been improvement in this respect to any appreciable extent. The loss in degumming and winding processes is still talked about by the weavers.

23. The following are the figures for the import of artificial silk during the last five years from which it would be seen that the import of this material has nearly doubled :—

Years A. D. Years Fasli.	1932-33 1342-F.	1933-34 1343-F.	1934-35 1344-F.	1935-36 1345-F.	1936-37 1346-F.
Value B. G.	Rs. 1,95,000	Rs. 2,10,000	Rs. 3,02,000	Rs. 2,60,000	Rs. 4,74,000

During the same period, the import of Indian and foreign raw silk has increased by 20 to 30 per cent. as may be seen from the following figures :—

Years A. D. Years Fasli.	1932-33 1342-F.	1933-34 1343-F.	1934-35 1344-F.	1935-36 1345-F.	1936-37 1346-F.
Raw silk Indian B. G.	Rs. 1,73,000	Rs. 2,05,000	Rs. 2,76,000	Rs. 2,73,000	Rs. 1,93,000
Raw silk Foreign B. G.	3,96,000	4,13,000	5,90,000	4,16,000	5,78,000

24. Following are the figures for five years for the import of spun silk which show that it is not on the increase :—

Years A. D. Years Fasli.	1932-33 1342-F.	1933-34 1343-F.	1934-35 1344-F.	1935-36 1345-F.	1936-37 1346-F.
Value B. G.	Rs. 1,92,000	Rs. 1,03,000	Rs. 1,78,000	Rs. 1,65,000	Rs. 1,66,000

25. Please see the statement marked "B".

26. The present duties on imported silk fabrics, etc., have proved beneficial to the local manufacturers as is evidenced by the increased consumption of Indian and foreign silk and art silk. (Please see the answer to question 23).

27. Four small power loom factories have come into existence during the past seven years; two in Anrangabad and two in Hyderabad city. Their financial position is fairly sound. They use mostly foreign silk because it is cheaper quality for quality.

28. Please see the cost sheets attached marked 'A'.

29. A good number of weavers' Co-operative Credit Societies were started and financed by Government with money free of interest, and at important centres they were federated into Sales Societies. But it was found that the weavers who lived from hand to mouth could not be depended upon for repayment either in cash or in kind. Therefore after some years, the Sale Societies had to be abolished especially as they had to face difficulties in the timely and profitable marketing of finished products.

30. Manufactured articles are sold within the Dominions as well as in British India such as Poona, Bombay, Nagpur, Sholapur, and other Maharashtra districts and also Bezwada in the Andhra districts. Except freight, the weaver does not incur any expenditure on transporting his goods.

31. The demand for natural silk has been increasing as the following figures would show:—

Years A. D. Years Fasli	1932-33 1342-F	1933-34 1343-F	1934-35 1344-F	1935-36 1345-F	1936-37 1346-F
	Rs.	Rs.	Rs.	Rs.	Rs.
Indian B. G. .	1,73,000	2,05,000	2,76,000	2,73,000	1,93,000
Foreign B. G. .	3,96,000	4,13,000	5,90,000	4,16,000	5,78,000
Total B. G. .	5,69,000	6,18,000	8,66,000	6,89,000	7,71,000

32. The present sources of supply of foreign raw silk are Japan and China which provide above 70 per cent. of our requirements, and Mysore, Kashmir and Bengal which in all supply about 30 per cent. For the quantity and value please see statement marked 'O'.

33. The above given figures (question 31) indicate that there has not been any appreciable turnover from imported to indigenous silk as a result of protection.

34. Hyderabad being the consumer of imported Indian and Foreign silk it is suggested that further protection to Indian sericulture should be granted on a moderate scale only if it is considered unavoidable in the interest of the industry. Otherwise, the increased duty on raw materials would tend to deter the development of silk weaving industry.

*Costing of typical articles of cloth manufactured in Armoor,
Nizamabad District.*

1. A silk sari measuring 45" x 6½ yards having Gold lace in Border and Palloo—Selling price B. G. Rs. 18—Net weight 44 tolas including 6 tolas of Gold laco.

Costing:

	O. S. Rs. A. P.
47 tolas Raw Silk (Mancha) for warp and weft at Rs. 16-8 per 126 tolas (one tola of 11 masha)	6 2 6
Winding and dressing charges for the above at Rs. 2-8 per 126 tolas	0 14 11
Twisting the above at As. 8 per 126 tolas	0 3 0
Doubling charges for weft 28 tolas at As. 3-6 per 126 tolas	0 0 9
Degumming charges for 47 tolas at As. 6 per 126 tolas	0 2 0
Dyeing charges for above at As. 4 per 126 tolas	0 1 2
Value of dyes and chemicals, etc.	0 8 0
Cost of Gold lace, 6 tolas at Rs. 16-8 per marcs of 22 tolas	4 8 0
Weaving charges	5 0 0
One Boy Helper	0 4 0
Cost price O. S.	17 12 4
B. G.	15 3 9
Weavers are paid per picco	O. S. 5 0 0
B. G.	4 4 6
Selling price O. S.	21 0 0
B. G.	18 0 0

Time required for weaving is 6 to 7 days.

2. A Silk Pitambar measuring 46" x 8 yards having Gold lace in Border and Palloo (solid Border and ordinary Palloo)--Selling price B. G. Rs. 27-6-11
—Not weight 72 tolas including Gold lace 14 tolas.

Costing:

	O. S.
	Rs. A. P.
70 tolas Raw Silk (Mancha) for warp and weft at Rs. 16 per 126 tolas	8 6 2
Winding, dressing, twisting, warping, doubling, degumming and dyeing charges for above	3 0 9
Value of dyes and chemicals	0 8 0
14 tolas Gold lace (Surat) at Rs. 16-8 per marc of 22 tolas	10 8 0
Weaving charges	7 0 0
One Boy Helper	0 6 0
	<hr/>
Cost price O. S.	29 12 11
	<hr/>
	B. G. 25 8 10
Weavers are paid per piece	O. S. 7 0 0
	B. G. 6 0 0
Selling price O. S.	32 0 0
	<hr/>
	B. G. 27 6 11
	<hr/>

Time required for weaving is 10 to 11 days.

3. Silk Taffeta cloth.—A piece measuring 45" x 6 yards semi-degummed—
Not weight 41 tolas having Mancha silk for warp and Bangalore silk for
weft—Selling price B. G. Rs. 9-1-9.

Costing:

	O. S.
	Rs. A. P.
20 tolas Raw Silk (Mancha) for warp at Rs. 16-8 per 126 tolas	2 9 10
28 tolas Raw Silk Bangalore for weft at Rs. 14 per 126 tolas	3 1 9
Winding, dressing, twisting, etc., at Rs. 5 per 126 tolas	1 14 5
Weaving charges	2 0 0
	<hr/>
Cost price O. S.	9 10 0
	<hr/>
	B. G. 8 4 0
Weavers are paid per piece	O. S. 2 0 0
	<hr/>
	B. G. 1 11 6
Selling price O. S.	10 10 0
	<hr/>
	B. G. 9 1 9
	<hr/>

Time required for weaving the above is 3 to 4 days.

4. A mixed fabric sari, known as "Banjani" measuring 41" x 8 yards having Gold lace in Palloo, 8 mashas (Surat); 16 tolas silk (Mancha) 2/84s mor. yarn, 9 tolas used in stripe; 20s yarn in weft 40 tolas—Net weight 66 tolas—Selling price B. G. Rs. 8-12-7.

Costing:

	O. S.
	Rs. A. P.
19 tolas Raw Silk (Mancha) for warp at Rs. 16 per 126 tolas	2 6 6
Twisting, degumming and warping, etc., at Rs. 5 per 126 tolas	0 9 3
8 mashas Gold lace (Surat) at Rs. 16-8 per marc of 22 tolas	0 8 0
2/84s mercerised yarn 9 tolas at Rs. 16 per 10 lb.	0 6 0
20s yarn for weft 40 tolas at Rs. 5 per 10 lb.	0 8 0
Dyeing charges	0 3 0
Weaving charges	4 8 0
Cost price O. S.	9 0 9
B. G.	7 9 0
Selling price O. S.	10 4 0
B. G.	8 12 7
Weavers are paid per piece O. S.	4 8 0
B. G.	3 13 8

Time required for weaving is 6 to 7 days.

Costing of Typical articles of cloth manufactured in Narayanpet, Mahabubnagar District.

1. A silk sari measuring 48" x 8½ yards with Gold lace in Border and Palloo having solid Border and top Palloo—Selling price B. G. Rs. 21-9—Net weight 52 tolas including Gold lace 4 tolas.

Time required for weaving the above is 7 to 8 days.

Costing:

	O. S.
	Rs. A. P.
63 tolas of Raw Silk for warp and weft (Steam) at Rs. 17-12 per 132 tolas	7 10 3
Twisting, warping and doubling, etc., for the above at Rs. 4 per 132 tolas	1 14 6
4 tolas Gold lace (France) Rs. 30 per marc of 22 tolas	5 7 3
Dyeing charges including dyes and chemicals, etc.	1 0 0
Weaving charges	6 0 0
Cost price O. S.	22 0 0
Cost price B. G.	18 13 9
Selling price O. S.	25 0 0
Selling price B. G.	21 9 0
Weavers are paid per piece O. S.	6 0 0
B. G.	5 2 6

2. A mixed fabric sari known as 'Maheshwari design' measuring 48" x 8½ yards, consisting 26 tolas silk, 20 tolas 80s yarn, and 2½ tolas Gold lace in Border—Net weight 48½ tolas—Selling price B. G. Rs. 13-11-5.

Time required for weaving such sari is 4 to 5 days.

Costing:

	O. S.
	Rs. A. P.
34½ tolas of Raw Silk (Steam) at Rs. 18 per 132 tolas	4 10 9
20 tolas of 80s yarn at Rs. 17-8 per 10 lbs.	0 13 6
2½ tolas Gold lace (France) at Rs. 30 per marc of 22 tolas	3 12 0
Twisting, warping, etc., at Rs. 4 per 132 tolas for the above	1 1 4
Dyeing charges including dyes and chemicals	1 0 0
Weaving charges	2 12 0
	<hr/>
Cost price O. S.	11 1 7
	<hr/>
Cost price B. G.	12 1 4
Selling price O. S.	16 0 0
	<hr/>
Selling price B. G.	13 11 5
Weavers are paid per piece O. S.	2 12 0
	<hr/>
	B. G. 2 5 9

3. A Silk Madi Pancha measuring 50" x 5 yards—Selling price B. G. Rs. 9 to Rs. 9-7.

Time required for weaving the above is 3 to 4 days.

Costing:

	O. S.
	Rs. A. P.
33 tolas of Raw Silk (Steam) at Rs. 18 per 132 tolas	4 8 0
Twisting, dressing, warping and doubling for the above at Rs. 4 per 132 tolas	1 0 0
Dyeing charges, including dyes and chemicals, etc.	0 12 0
Weaving charges	2 8 0
	<hr/>
Cost price O. S.	8 12 0
	<hr/>
Cost price B. G.	7 8 0
Selling price O. S.	10 8 0
	<hr/>
Selling price B. G.	9 0 0
	<hr/>
Weavers are paid per piece O. S.	2 8 0
	<hr/>
	B. G. 2 2 4

4. A Silk Pitambar measuring $45\frac{1}{2} \times 8$ yards with Gold lace in Border, Palloo and Body—Selling price Rs. 77-2-4—Net weight 108 tolas including Gold lace 22 tolas.

Time required for weaving the above is 22 to 25 days.

Costing:

	O. S.
	Rs. A. P.
119 Raw Silk for Warp and Weft (Steam) at Rs. 18 per 132 tolas	16 3 7
Twisting, degumming, warping, etc., for the above at Rs. 4 per 132 tolas	3 8 3
Dyeing charges including dyes and chemicals with Supronol colours	2 0 0
22 tolas of Gold lace (France) at Rs. 36 per marc of 22 tolas	36 0 0
Weaving charges including one Boy helper	20 0 0
Cost price O. S.	77 11 10
Cost price B. G.	66 10 2
Selling price O. S.	90 0 0
Selling price B. G.	77 2 4
Weavers are paid per piece O. S.	20 0 0
	B. G. 17 2 4

5. A mixed check sari measuring $52\frac{1}{2} \times 9$ yards having 60s warp and weft with solid Border and solid Palloo—Selling price B. G. Rs. 12-2-4—Net weight about 54 tolas, including Silk.

Time required for weaving the above is 5 to 6 days.

Costing:

	O. S.
	Rs. A. P.
104 ozs. of 60s yarn for warp and weft at Rs. 12 per 10 lb.	0 12 9
Warping and sizing for the above	0 3 6
424 Raw Silk at Rs. 18 per 132 tolas	5 11 8
Twisting, degumming for the above at Rs. 4 per 132 tolas	1 4 5
Dyeing charges	0 6 0
Weaving charges	3 8 0
Cost price O. S.	11 14 4
Cost price B. G.	10 3 9
Selling price O. S.	13 0 0
Selling price B. G.	12 2 4
Weavers are paid per piece O. S.	3 8 0
	B. G. 3 0 0

*Costing of Typical articles of cloth manufactured in Siddipet,
Medak District.*

1. A Pitambar measuring $45'' \times 7\frac{1}{2}$ yards having Gold lace in Border, Palloo and Body—Selling price B. G. Rs. 56-9—Net weight 84 tolas including Gold lace 38½ tolas.

Time required for weaving the above 25 days.

Costing:

	O. S.
	Rs. A. P.
25 tolas Raw Silk (Japan) for Warp at Rs. 20 per 120 tolas	4 2 8
29 tolas Raw Silk (Stoam) for weft at Rs. 18 per 120 tolas	4 5 7
38½ tolas Gold lace (Surat) at Rs. 17-9 per marc of 22 tolas	30 11 9
Twisting, winding, warping, dressing, doubling and dyeing, etc., at Rs. 4 per 120 tolas	3 4 0
Value of dyes and chemicals, etc.	0 8 0
Weaving	20 0 0
One Boy Helper	0 4 0
Cost price O. S.	63 4 0
Cost price B. G.	54 4 10
Selling price O. S.	66 0 0
Selling price B. G.	56 9 0
Weavers are paid per piece O. S.	20 0 0
B. G.	17 2 4

2. A Pitambar measuring $44'' \times 7\frac{1}{2}$ yards having Gold lace in Border, Palloo and small flowers in Body—Selling price B. G. Rs. 27-9-5—Net weight 55 tolas including Gold lace 11 tolas.

Time required for weaving the above 10 days.

Costing:

	O. S.
	Rs. A. P.
22 tolas Raw Silk for warp (Japan) at Rs. 20 per 120 tolas	3 10 8
33 tolas Raw Silk for weft (Bangalore) at Rs. 15 per 120 tolas	4 2 0
11 tolas Gold lace (Surat) at Rs. 17-8 per marc of 22 tolas	8 12 0
Weaving charges including, twisting, dressing, warping, doubling and dyeing, etc.	11 0 0
Value of dyes and chemicals, etc.	0 8 0
One Boy Helper	0 4 0
Cost price O. S.	29 4 8
Cost price B. G.	24 4 6
Selling price O. S.	32 0 0
Selling price B. G.	27 9 5
Weavers are paid per piece O. S.	9 0 0
B. G.	7 11 5

4. A Pitambar measuring $44'' \times 7\frac{1}{2}$ yards having Gold lace in Border, Palloo and Body—Selling price B. G. Rs. 38-9—Net weight 75 tolas including Gold lace 22 tolas.

Time required for weaving the above 14 to 15 days.

Costing:

	O. S.	Rs. A. P.
29 tolas Raw Silk for warp (Japan) at Rs. 20 for 120 tolas		4 13 4
40 tolas Raw Silk for weft (Bangalore) at Rs. 15 for 120 tolas		5 0 0
22 tolas Gold lace (Surat) at Rs. 17-8 per mare of 22 tolas		17 8 0
Weaving charges including winding, twisting, warping and dyeing, etc.		13 0 0
Value of dyes and chemicals, etc.		0 8 0
One Boy Helper		0 4 0
Cost price O. S.		41 1 4
Cost price B. G.		35 4 11
Selling price O. S.		45 0 0
Selling price B. G.		38 9 0
Weavers are paid per piece	O. S.	10 11 0
	B. G.	9 2 7

*Cost of typical articles of cloth manufactured in Paithan,
District Aurangabad.*

A coloured silk sari with palloo on one side, measuring $48'' \times 8\frac{1}{2}$ yards, having Paithan hand-made Gold thread in Border and Palloo—Net weight 75½ tolas—Selling price B. G. Rs. 84.

Costing:

50 tolas of degummed and dyed silk for warp and weft at Rs. 25 per 120 tolas. (Superior silk of Japan)		10 6 8
Silver thread (Paithan made) $1\frac{1}{2}$ tola at As. 12 per tola		0 13 6
24½ tolas Gold thread (Paithan) at Rs. 2-4-3 per tola		55 8 2
Warping and twisting, i.e., looming charges		2 0 0
Weaving charges		18 0 0
Weavers are paid per piece	O. S.	18 0 0
	B. G.	15 7 0
Cost price O. S.		86 12 4
	B. G.	74 6 0
Selling price O. S.		98 0 0
	B. G.	84 0 0

Time required for weaving is 23 to 25 days.

2. A Silk Pitambar, known as *Keshari* measuring 49" x 5 yards having Paithan hand-made Gold thread for Border, without Palloo—Net weight 50½ tolas including 10½ tolas Gold thread—Selling price B. G. Rs. 39-6-11.

Costing:

	O. S.	
	Rs. A. P.	
40 tolas of silk (ready twisted, dyed silk) for warp and weft at Rs. 22 per 120 tolas. (Superior silk of Japan)	7 5 4	
10½ tolas Gold thread at Rs. 2-4-3 per tola	23 1 6	
Warping and looming charges	1 8 0	
Weaving charges	8 8 0	
Cost price O. S.	40 6 10	
B. G.	34 10 6	
Selling price O. S.	46 0 0	
B. G.	39 6 11	
Weavers are paid per piece	8 8 0	
B. G.	7 4 7	

Time required for weaving is 12 days.

3. Paithan Gold thread sari Border known as "Asawali", with 7½" x 11 yards Net weight 40½ tolas including 32 tolas of Gold thread (Paithan hand-made)—Selling price B. G. Rs. 195-6-10.

(Made to order).

Costing:

	O. S.	
	Rs. A. P.	
8½ tolas of twisted, degummed and dyed silk at Rs. 25 per 120 tolas. (Superior silk of Japan)	1 12 6	
32 tolas Gold thread at Rs. 2-4-3 per tola (Paithan made)	72 8 0	
Wages for warping and doubling	1 4 0	
Weaving charges at Rs. 11-8 per yard	126 8 0	
Cost price O. S.	202 0 6	
B. G.	173 0 0	
Weavers are paid per piece	126 8 0	
B. G.	107 14 11	
Selling price O. S.	228 0 0	
B. G.	195 6 10	

Time required for weaving is five months.

Statement showing the Variation in Cost Price, Selling Price and Wages of the Typical Silk and Mixed Fabrics at Sildipalh, Medak District.

No.	Typical articles of cloth.	1933-34 1343 Fasli.			1934-35 1344 Fasli.			1935-36 1345 Fasli.		
		Cost price B. G.	Selling price B. G.	Wages. B. G.	Cost Price. B. G.	Selling Price. B. G.	Wages. B. G.	Cost Price. B. G.	Selling Price. B. G.	Wages. B. G.
1	Pitambar with gold lace in border, palloo and body.	Rs. A. P. 54 10 0	Rs. A. P. 58 0 0	Rs. A. P. 18 0 0	Rs. A. P. 54 10 0	Rs. A. P. 58 0 0	Rs. A. P. 18 0 0	Rs. A. P. 54 8 0	Rs. A. P. 57 0 0	Rs. A. P. 18 0 0
2	Pitambar with gold lace in border and palloo and small flowers in body.	24 8 0	28 0 0	8 0 0	24 8 0	28 0 0	8 0 0	24 8 0	28 0 0	8 0 0
3	Pitambar with gold lace in border, palloo and body.	35 8 4	37 0 0	9 8 0	36 1 4	37 0 0	9 8 0	36 2 0	37 0 0	9 8 0
4	Silk sari with gold lace in border and palloo.	13 0 0	15 9 5	5 0 0	13 3 0	15 9 5	5 0 0	13 6 0	15 9 5	5 0 0

Statement showing the Variation in Cost Price, Selling Price and Wages of the Typical Silk and Mixed Fabrics at Siddipath, Medak District—contd.

No.	Typical articles of cloth.	1936-37 1346 Fasli.			1937-38 1347 Fasli.		
		Cost price. B. G.	Selling price. B. G.	Wages. B. G.	Cost price. B. G.	Selling price. B. G.	Wages. B. G.
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1	Pitambar with gold lace in border, palloo and body.	55 5 0	57 0 0	18 0 0	54 5 0	56 9 0	17 2 0
2	Pitambar with gold lace in border and palloo and small flowers in body.	24 10 0	28 0 0	8 0 0	24 4 0	27 9 5	7 11 5
3	Pitambar with gold lace in border, palloo and body.	36 8 0	37 8 0	9 8 0	35 3 4	38 9 0	9 0 0
4	Silk sari with gold lace in border and palloo.	14 2 0	15 9 5	4 15 0	13 2 11	14 9 5	4 5 0

Statement showing the Variation in Cost Price, Selling Price and Wages of the Typical Silk and Mixed Fabrics at Amroor, Nizamabad District.

No.	Typical articles of cloth.	1933-34. 1343 Fasli.				1934-35. 1344 Fasli.				1935-36. 1345 Fasli.			
		Cost price B. G.	Selling price B. G.	Wages B. G.		Cost price B. G.	Selling price B. G.	Wages B. G.		Cost price B. G.	Selling price B. G.	Wages B. G.	
1	Silk sari with gold lace in border and palloo.	Rs. A. P. 17 9 0	Rs. A. P. 19 0 0	Rs. A. P. 4 6 6		Rs. A. P. 17 8 3	Rs. A. P. 19 0 0	Rs. A. P. 4 6 6		Rs. A. P. 17 8 3	Rs. A. P. 19 0 0	Rs. A. P. 4 6 6	
2	Pitambar with gold lace in border and palloo (solid border and palloo).	27 1 0	29 0 0	6 0 0		27 1 0	29 0 0	6 0 0		25 8 10	27 6 11	6 6 6	
3	Silk taffeta . . .	9 4 0	10 4 0	1 13 0		9 4 0	10 4 0	1 13 0		8 10 0	9 10 0	1 13 0	
4	Mixed fabric sari with gold lace in palloo and border.	8 0 0	9 0 0	4 0 0		8 1 0	9 0 0	4 0 0		8 0 0	9 0 0	4 0 0	

Statement showing the Variation in Cost Price, Selling Price and Wages of the Typical Silk and Mixed Fabrics at Armoor, Nizamshah District—contd.

No.	Typical articles of cloth.	1336-37. 1346 Fasli.				1937-38. 1347 Fasli.			
		Cost price B. G.	Selling price B. G.	Wages B. G.		Cost price B. G.	Selling price B. G.	Wages B. G.	
1	Silk sari with gold lace in border and palloo.	Rs. A. P. 17 8 3	Rs. A. P. 18 0 0	Rs. A. P. 4 4 6		Rs. A. P. 15 8 0	Rs. A. P. 18 0 0	Rs. A. P. 4 4 6	
2	Pitambar with gold lace in border and palloo (solid border and palloo).	27 1 0	29 8 0	6 6 6		25 8 0	27 6 11	6 0 0	
3	Silk taffeta	9 4 0	10 4 0	1 13 0		8 4 0	9 1 9	1 11 6	
4	Mixed fabric sari with gold lace in palloo and border.	8 0 0	9 0 0	4 0 0		7 9 0	8 13 7	3 13 8	

Statement showing the Variation in Cost Price, Selling Price and Wages of the Typical Silk and Mixed Fabrics at Narayanpeth, Mahabnagar District.

No.	Typical articles of cloth.	1933-34. 1343 Fasli.				1934-35. 1344 Fasli.				1935-36. 1345 Fasli.			
		Cost price B. G.	Selling price B. G.	Wages B. G.		Cost price B. G.	Selling price B. G.	Wages B. G.		Cost price B. G.	Selling price B. G.	Wages B. G.	
1	Pitambar with gold lace in border, palloo and body.	Rs. A. P. 69 2 0	Rs. A. P. 80 0 0	Rs. A. P. 18 2 4		Rs. A. P. 68 1 4	Rs. A. P. 80 0 0	Rs. A. P. 18 2 4		Rs. A. P. 67 2 0	Rs. A. P. 79 0 0	Rs. A. P. 18 2 4	
2	Mixed fabrics plain body "Maheswari" designed sari.	12 3 7	13 11 0	2 10 0		12 3 7	13 11 5	2 10 0		12 5 7	13 11 5	2 10 0	
3	Silk sari having solid border and solid palloo with gold lace in border.	18 13 9	21 9 0	5 10 6		18 13 9	21 9 0	3 10 6		18 13 9	21 9 0	5 10 6	

Statements showing the Variation in Cost Price, Selling Price and Wages of the Typical Silk and Mixed Fabrics at Narayanpet, Mahabubnagar District—contd.

No.	Typical articles of cloth.	1936-37. 1345 Fasil.			1937-38. 1347 Fasil.		
		Cost price Rs. A. P. B. G.	Selling price Rs. A. P. B. G.	Wages. Rs. A. P. B. G.	Cost price Rs. A. P. B. G.	Selling price Rs. A. P. B. G.	Wages. Rs. A. P. B. G.
1	Pitanhar with gold lace in border, palloo and body.	67 2 0	78 0 0	17 2 4	66 10 2	77 2 4	17 2 4
2	Mixed fabrics plain body "Maheswari" designed sari.	12 3 7	14 11 5	2 5 9	11 3 7	13 11 5	2 5 9
3	Silk sari having solid border and solid palloo with gold lace in border.	19 2 9	22 0 0	5 2 6	18 13 9	21 9 0	5 3 6

Statement showing the Quantity and Value of Indian and Foreign Raw Silk imported into H. E. H. the Nizam's Dominions, centre by centre for the last five years, i.e., from 1933 to 1937.

Particulars.	Source of supply.	1932-33 1342 F.		1933-34 1343 F.		1934-35 1344 F.		1935-36 1345 F.		1936-37 1346 F.	
		Quantity in lb.	Value in Rs.	Quantity in lb.	Value in Rs.	Quantity in lb.	Value in Rs.	Quantity in lb.	Value in Rs.	Quantity in lb.	Value in Rs.
1. Hyderabad District.	Indian .	337	806	180	673	22	92	47	181	39	170
	Foreign .	..	..	..	..	284	1,256	92	398	..	..
2. Secunderabad "	Indian .	7,132	17,046	2,712	10,092	2,537	10,302	17,911	68,063	12,390	53,900
	Foreign .	15,307	55,105	12,985	66,426	20,115	88,307	10,167	43,619	16,407	69,480
3. Osmanabad "	Indian .	288	698	89	332	76	311	166	630	267	1,162
	Foreign .	82	297	10	66	39	172	55	230	13	56
4. Aurangabad "	Indian .	246	589	290	1,080	87	356	96	366	15	65
	Foreign .	61	220	32	163	7	32	19	83	5	23
5. Lingsgar .	Indian .	33,337	79,677	34,908	1,29,859	36,165	1,46,832	29,872	1,13,516	13,218	57,498
	Foreign .	2,234	8,044	4,036	20,636	5,736	25,182	9,171	39,346	30,290	1,27,733
6. Madhira .	Indian .	4	13	72	268	3	13	7	25	..	..
	Foreign .	12	45	18	91	1	4	..	..	..	..
7. Warangal "	Indian .	1,432	3,303	2,174	8,088	5,192	21,082	5,276	20,049	3,391	14,753
	Foreign .	19,798	71,275	24,073	1,22,871	19,565	85,847	10,903	46,767	7,684	32,659

Statement showing the Quantity and Value of Indian and Foreign Raw Silk imported into H. E. H. the Nizam's Dominions, centre by centre for the last five years, i.e., from 1933 to 1937—contd.

Particulars.	Source of supply.	1932-33 1932 F.		1933-34 1933 F.		1934-35 1934 F.		1935-36 1935 F.		1936-37 1936 F.	
		Quantity in lb.	Value in Rs.	Quantity in lb.	Value in Rs.	Quantity in lb.	Value in Rs.	Quantity in lb.	Value in Rs.	Quantity in lb.	Value in Rs.
8. Rajura District	Indian .	3	10	88	329	..	..	17	68	3	12
	Foreign .	7	26	131	670	7	29	7	31	..	..
9. Gulbarga	Indian .	6,221	14,869	3,209	11,939	9,605	38,098	8,964	34,064	7,771	33,805
	Foreign .	49,848	1,79,452	26,830	1,36,982	65,066	2,85,759	47,317	2,92,991	56,799	2,40,397
10. Gudavari	Indian .	17,710	42,828	5,533	20,584	8,806	35,753	4,932	18,741	3,926	17,079
	Foreign .	22,708	81,751	12,639	64,562	23,455	1,02,966	19,184	82,300	24,748	1,04,478
11. Bhir	Indian .	5,824	13,919	5,924	22,039	6,400	22,291	4,848	17,414	3,258	14,175
	Foreign .	2	7	17	88	62	276	8	33	594	2,526
GRAND TOTAL		182,593	5,69,570	135,950	6,17,858	202,332	8,65,860	189,059	6,88,924	180,818	7,70,170
Total Indian		72,534	1,73,348	55,179	2,05,283	67,983	2,76,030	72,136	2,73,117	44,278	1,92,619
Total Foreign		110,059	3,96,222	80,771	4,12,555	134,349	5,89,830	96,923	4,15,807	136,540	5,77,551
GRAND TOTAL		182,593	5,69,570	135,950	6,17,838	202,332	8,65,860	189,059	6,88,924	180,818	7,70,170

- (2) *Letter No. 9188, dated the 23rd July, 1938, from the Secretary to Government, Department of Commerce and Industries, H. E. H. the Nizam's Government, Hyderabad.*

In continuation of letter No. 6433, dated the 19th July, 1938, addressed to you by the Director, Commerce and Industries, I am directed to say that as regards the General Questionnaire, the Department has no information to give as there is no sericultural industry in this State.

Regarding the questionnaires for traders and importers and silk and artificial silk manufacturers necessary information is being collected by the Commerce and Industries Department as the traders themselves are not able to answer them.

- (3) *Letter No. 6560, dated the 24th July, 1938, from the Department of Commerce and Industries, H. E. H. the Nizam's Government, Hyderabad.*

In continuation of this Office letter No. 6433, dated the 19th July, 1938, I have the honour to forward herewith reply to your questionnaire for traders and importers and also reply to the questionnaire for silk and artificial silk goods manufacturers which may kindly be acknowledged. As for the two other factories situated at Anrangabad, their replies are awaited and will be forwarded to you as soon as they are received.

Regarding general questionnaire of sericultural enquiry, I have to state that it is beyond the scope of this department to reply as there is no sericulture industry at all in the State.

Enclosure I.

Reply to Questionnaire for Importers and Traders.

1. Japan and China are the foreign countries which compete most with Indian silks. The merchants are not in a position to give any answer for the latter part as they purchase their requirements from the wholesale dealers in Bombay.

2. The merchants are not in a position to give any answer as they purchase their requirements from the wholesale dealers in Bombay. The current prices at which the merchants purchase silk are as follows:—

B. G.

	Rs.	A.	P.	
(1) Steam China 20/22 . . .	4	4	0	per lb.
(2) Mancha China ordinary . . .	3	8	0	„
(3) Fine Mancha . . .	3	12	0	to Rs. 4 per lb.
(4) Japan 20/22 filature . . .	5	6	0	per lb.
(5) Japan 24/26 filature . . .	5	2	0	„
(6) Kashmir Lotus silk . . .	5	6	0	„
(7) Bangalore charka . . .	2	4	0	to Rs. 3 per sr. of 26½
				tolas according to
				quality.

Railway freight one anna per lb. and 5 per cent. Customs duty both on price and freight.

3. The merchants are not in a position to reply to this—

4. After looking to the quotations whichever is found cheaper is indented by the merchants—whether it is Indian or foreign and the realisation is the same in both.

5. The merchants here are dealing direct with the wholesale dealers in Bombay, Bangalore, etc., from whom they are getting their requirements. Even Kashmir silk is purchased in Bombay.

6. The merchants have no idea in this matter.

7. The merchants are of opinion that foreign silk is superior to Indian silk in quality and appearance and it is also cheaper. It is further stated that Indian silk is rather difficult to wind and waste is more. They have no idea about the remedial methods for improvement in technical skill or sericulture.

8. The merchants have no knowledge about this.

9. The merchants have no knowledge about this.

10. The merchants have no knowledge about this.

11. If the present rate is increased, it is harmful to traders as well as consumers and if decreased it is harmful to Indian Sericultural Industry.

12. In this State, Indian charka silk is used more for weft for the reason that it is cheaper than filature silk, at the same time the labour involved in re-reeling, twisting, etc., goes to the womenfolk of weavers. As such the weavers prefer to purchase charka silk. The use of hand reeled silk as well as art silk and staple fibre is on the increase. Greater use of art silk and staple fibre may be due to price factor. For the pure silk also, the demand is increased.

13, 14 & 15. The merchants have no idea in the matter.

16. The merchants are of opinion that there has been no marked change in the quality since 10 years.

17. The merchants sell direct to weavers as well as to retailers.

18. Weavers get their supply of spun silk, art silk and silk yarn from merchants. They get raw silk from Indian and foreign; art silk and spun silk from foreign.

1938:—

Ray silk—Please see answer to question 11.

Per lb. according to quality.

B. G.

	Rs. A. P.	Rs. P.
Spun silk 2/140	4 8 0	to 4 12
Spun silk 2/150	5 0 0	„ 5 4
Art silk 150	0 10 3	
Art silk 300	0 10 3	„ 0 11
Art silk 2/150	0 11 3	„ 0 12

19. Yes, the staple fibre is used by weavers in the manufacture of silk goods. As regards proportion, the merchants could not give any idea. Source of supply is Bombay market only.

Per lb.

Rs. A. P.

Staple fibre (double) 40/2	0 15 0
Staple fibre (double) 60/2	1 1 0
Staple fibre (double) 80/2	1 5 6

20. The merchants state that it may tend to but the purchase of silk may hold its own on account of its high quality.

21. All these operations are generally performed by weavers.

22. Foreign Japanese and Chinese silk is more used for warp and Indian charka silk is more used for weft.

23. Spun silk is used for sari borders, suitings and shirtings.
24. No sorting is done by merchants or any other agency here. Cheapness is the main factor with the weavers.
25. The merchants have no idea about this.
- 26, 27, 28 & 29. The merchants have no idea about this.
30. Coatings, shirtings, taffeta, georgettes, crepe, etc., are the goods which compete with the similar silk goods manufactured in India.
31. It has been stated by the merchants that some two years back, the import of foreign artificial silk goods and mixture was greater, but now it has dropped down to about 30 per cent. to 40 per cent.
- 32, 33, 34 & 35. The merchants have no idea about this.

Enclosure II(A).

Reply to questionnaire from The Bhagyanagar Weaving Works, Hyderabad.

QUESTIONNAIRE FOR SILK AND ARTIFICIAL SILK GOODS MANUFACTURERS.

1. (a) My concern is an unregistered firm.
- (b) The matter does not arise.
- (c) The matter does not arise.
- (d) The matter does not arise.
2. The total capacity of my factory is 10 power looms with the necessary preparatory machines such as (1) Winding Machine of 32 spindles, (2) Pirn Winding Machine 24 spindles, (3) Warping machine, (4) Doubling machine of 28 spindles capable of producing 200 to 250 yards per day.
3. The total output of my factory is 27,000 yards of staple silk and 2,400 yards of tussar silk from 13th April, 1937 to 13th April, 1938.
4. In my factory coating, shirting and saris are manufactured, the average percentage being coating 50 per cent., shirting 30 per cent. and saris 20 per cent.
5. (a) My consumption from 13th April, 1937 to 13th April, 1938 is as follows:—

	Lbs.
Staple fibre	9,000
Tussar silk	800

The country of origin is Japan and Italy but purchased at Bombay from wholesale dealers.

- (b) I have no reasons to give in this matter.
6. (a) I am not using raw silk.
 - (b) Mixed cloth with pure silk is not manufactured.
 7. Only railway freight and Customs duty are paid. The freight and other sundry charges work about one anna per lb. and the duty is 5 per cent. on the cost of raw materials *plus* freight charges.
 8. No account in this respect is maintained in my factory.
 9. I have no idea.
 10. My looms are suitable for both Indian as well as imported silk.
 11. We get the yarn in hanks, from the hank the yarn is wound on bobbins, from the bobbins the yarn is taken on warping machine, after which beaming is made, and the beam then goes on loom for final weaving.

12. The Forms I and II are filled in as desired and annexed.
 13. I have no idea.
 14. Since the commencement of my factory, I have employed from 15 to 21 hands. Being small concern, I have no facilities for training any apprentices.
 15. I have no idea.
 16. As my products are sold locally the question of freight difficulties does not arise.
 17. The block value of my property may be given under the following heads:—

	Rs.	A.	P.
Building and machinery	12,782	8	6
Assets in form of finished goods and raw materials worth about	15,000	0	0

18. I have no idea.
 19. Mine being a proprietary concern, neither writing off depreciation nor Reserve Fund, etc., were maintained.
 20. Nil.
 21. No balance sheet has been prepared as yet.
 22. Nil.
 23. I have nothing to observe.
 24. I have no idea.

Form I.—Total expenditure incurred on the production of silk goods.

13th April, 1937 to 13th April, 1938.

	Rs.
1. Raw material	11,700
2. Mill labour	8,400
3. Power and fuel	500
4. Current repairs and maintenance	500
5. Supervision and establishment	3,900
6. Miscellaneous, rent, municipal taxes, insurance, etc.	1,000
7. Other items	3,750
Total	29,750

Form II.—Works cost per yard of cloth.

13th April, 1937 to 13th April, 1938.

	As.	P.
1. Raw material	6	0
2. Mill labour	4	6
3. Power and fuel	0	4
4. Current repairs and maintenance	0	4
5. Supervision and establishment	2	1
6. Miscellaneous, rent, municipal taxes, insurance, etc.	0	6
7. Other items	2	0
Total	15	9

Enclosure II(B).

Reply to Questionnaire for Silk and Artificial Silk Goods Manufacturers.

THE HYDERABAD SILK MILLS, LTD.

1. (a) Our concern is a Public Limited one.
- (b) It is registered in Hyderabad-Deccan and the share capital is in Osmania sicca rupees.
- (c) 96 per cent. are Indian share-holders holding 486 shares.
- (d) The Directorate as well as the superior management of the Company are represented by Indians only.
2. 300 to 350 yards of cloth of artificial silk or tussar silk or mixtures can be taken out per day.
3. Our factory regularly commenced work in the middle of October, 1937 and the total output after the end of June, 1938, may be taken as 20,402 yards of cloth, comprising artificial silk goods, tussar silk goods and mixtures, as the full plant has not been worked.
4. The chief classes of goods that are manufactured in our factory are suitings, shirtings, saris and dhoties. The respective percentages of them are—suitings 80, shirtings 8, saris 10 and dhoties 2 on average.

	Lbs.
5. (a) Raw silk . . . . .	...
Artificial silk	100
Spun silk	177
Staple Fibre	3,790
Tussar silk	825

The above figures are for the period from October, 1937 to the end of June, 1938. The origin for the above silk yarns we use are as follow:—

Japan—Staple fibre, art.-silk, tussar Fuji.

England—Tussar and spun silk.

Italy—Spun silk cordouat.

Shanghai—Waste silk (grey).

France—Waste silk (bleached).

All the above yarns we purchase from the wholesale merchants of Bombay.

(b) All the abovementioned yarns are not manufactured in India and so we have to purchase foreign things.

6. (a) We are not manufacturing any goods wholly out of raw silk.

(b) We are not mixing raw silk with any of the abovementioned materials, we are using in our factory.

7. We are not directly importing from foreign countries and we are purchasing from the wholesale merchants of Bombay. For every pound of yarn about one anna is to be paid towards railway freight, hamalage, etc., to get it to our factory. Over and above the invoice value of the yarn and railway freight we are paying 5 per cent. H. E. H. the Nizam's State *ad valorem* duty.

8. We are not manufacturing goods purely out of silk or artificial silk. In the case of mixtures, suitings are our standard products.

9. We may state that our prices compare favourably with that of imported articles.

10. Our machinery is not suitable for the manufacture of pure silk goods either of Indian or foreign origin.

11. The abovementioned silk yarns are wound upon warpers' bobbins, by the women labourers on the Drum Winding Machine. These bobbins are taken to the Doubling and Twisting machines for making doubled yarns

in different colours required. These bobbins are then kept upon the Warping Creel of the Sectional Warping Machines. After making the necessary sections the beaming is done. After the weavers beams are made they are taken to the Drawing Frame when the ends are drawn in Healds and Reed. That is how the warp is made for the beams. And the weft is made by winding yarn on the Pirns on the Pirn Winding Machine.

12. Forms I and II are duly filled up for the year 1937-38 and that too since October, 1937 to the end of June, 1938, which is the only working period for us.

13. We have no idea of this.

14. We employ about 35 to 40 persons per day; and the total wages Bill for the period commencing from October, 1937 to June, 1938, is Rs. 5,077-7-3. As our Factory is small one, we have not so far entertained any sort of apprentices.

15. We have no idea of this but probably Bombay market may be the keenest.

16. As our products are sold locally, we have not compared our prices with that of upcountry markets.

17. (a) Nil.

(b) Rs. 2,250.

(c) Rs. 13,000.

(d) Rs. 17,000.

(e) Rs. 16,000.

18. (i) It may be more or less the same as shown in the previous question.

(ii) As we have been working since October, 1937, the figures are not available.

19. (a) As we have been working since October, 1937 only, the figures are not available.

(b) As we have been working since October, 1937 only, the figures are not available.

20 & 21. As we have been working since October, 1937 only, the figures are not available.

22. (a) Rs. 838-5-9.

(b) Rs. Nil.

(c) Rs. 3,114-3-11.

(d) Rs. Nil.

23. We have no idea of it.

24. We have no idea of it.

FORM I.—Total expenditure incurred on the production of silk goods.

		1937-38.	
		Rs. A. P.	
1. Raw material	.	11,314	4 6
2. Mill labour	.	5,077	7 3
3. Power and fuel	.	1,298	9 10
4. Current repairs and maintenance	.	327	8 10
5. Supervision and establishment	.	1,638	6 10
6. Miscellaneous, rent, Municipal taxes, insurance, etc.	.	167	1 6
7. Other items	.	5,962	15 4
Total	.	25,696	6 1

FORM II.—Works cost per yard of cloth.

	1937-38.
	Rs. A. P.
1. Raw material	0 8 10
2. Mill labour	0 4 0
3. Power and fuel	0 0 11
4. Current repairs and maintenance	0 0 3
5. Supervision and establishment	0 1 3
6. Miscellaneous, rent, Municipal taxes, insurance, etc.	0 0 1
7. Other items	0 4 8
Total	1 4 0

(4) Letter No. 6678, dated the 25th July, 1938, from H. E. H. the Nizam's Government, Department of Commerce and Industries, Hyderabad.

Subject.—*Re: SERICULTURAL ENQUIRY.*

In continuation of this office letter No. 6560, dated the 24th July, 1938, I have the honour to forward herewith a copy of the reply to your questionnaire for silk and artificial silk goods manufacturers received from the Proprietor, Aurangabad Silk Factory, which may kindly be acknowledged.

One more reply from Bashir Silk Factory is still awaited which will be sent to you immediately on its receipt.

Replies to questionnaire for Silk and Artificial Silk Goods Manufacturers, from Mr. Abdul Majid Khan Mahmood Khan, Proprietor, Aurangabad Silk Factory.

1. (a) My factory is a private unregistered concern.

(b), (c) & (d) Nil.

2. The total productive capacity of my factory is about 600 yards artificial silk goods or mixtures.

3. The actual output of my factory is as follows:—

	Rs.
During 1935 cloth worth O. S.	81,590
During 1936 cloth worth O. S.	82,180
During 1937 cloth worth O. S.	96,759

It is difficult to show each variety separately.

4. The chief classes of goods and the average percentage are as follows:—

- (1) 50 per cent. suitings and shirtings with spun silk and tussar.
- (2) 5 per cent. of sherwani and suitings with woollen and staple fibre.
- (3) 5 per cent. handkerchiefs with spun silk and staple fibre.
- (4) 20 per cent. sarees with staple fibre and spun silk.
- (5) 3 per cent. himroo with mercerised, cotton and staple fibre.
- (6) 7 per cent. mashroo with staple fibre, cotton and artificial silk.
- (7) 2 per cent. Marathi mashroo with artificial silk, and staple fibre.
- (8) 8 per cent. shamlas with spun silk, tussar, staple fibre and art. silk.

5. (a) My consumptions for 1935, 1936 and 1937 are as follows:—

	Rs.
1935—Spun silk, tussar silk, mercerised yarn and artificial silk worth	45,808
1936—Spun silk, tussar silk, staple fibre, mercerised yarn and artificial silk	38,804
1937—Tussar silk, staple fibre, woollen yarn, artificial silk	47,729

These articles are foreign, i.e., Japan purchased in Bombay.

5. (b) Pure silk is not used in my factory.

6. No cloth is manufactured in this factory out of raw silk.

7. Charges mentioned in (a), (b), (c) & (d) are paid by merchants in Bombay.

(c) Transport charges to mill premises are as follows:—

	Rs.
1935—all yarns weighing 242 Bengal maunds . . .	186
1936— all yarns weighing 250 Bengal maunds . . .	192
1937 —all yarns weighing 396 Bengal maunds . . .	308

(f) Railway freight from Bombay to Aurangabad in the year—

	Rs.
1935	800
1936	850
1937	1,311

Customs duty —

	Rs.
1935	2,331
1936	1,995
1937	2,955

8. I am not maintaining any account in regard to this question.

9. I am unable to give any answer to this, but I may state that my manufactured goods are finding good sale.

10. So far I have not tried raw silk on my machinery.

11. Firstly the yarn is dyed to the required shade and then wound on warpers bobbins and these bobbins are put on the warping creel of the sectional warping machine. Then the warped sections are assembled and put on the loom after drawing in the ends and cloth woven. Then the cloth is washed and when it is wet it is folded and compressed in the hand machine for 12 hours.

12. I am not able to fill in the Forms I and II.

13. I have no idea hence could not give any reasons on the points raised in this question.

14. During 1933 the average labour was 30 and the average wages paid per annum Rs. 130. During 1934 the average labour was 32 and the average wages paid per annum Rs. 135. During 1935 the average labour was 45 and the average wages paid per annum Rs. 150. During 1936 the average labour was 50 and the average wages paid per annum Rs. 150. During 1937 the average labour was 65 and the average wages paid per annum Rs. 155. During 1938 the average labour was 99 and the average wages would be per annum Rs. 170.

15. I do not know in which of the Indian markets the competition is keenest.

16. My products are all sold within the State hence there are no freight difficulties.

17. The block value of my property is as follows:—

	Rs.
Value of land	6,000
Value of the building	36,000
Value of machinery	48,000
Value of spare parts	3,000
Value of new machinery to be installed	5,000
Value of new building for the above machinery	6,000
Residential quarters	6,000
Total	1,10,000

Assets are as follows:—

Stock of manufactured goods	29,000
Stock of raw materials such as artificial silk yarn, woollen yarn, staple fibre, tussar silk, etc.	24,000
Dyes and chemicals	4,300
Process on looms	5,400
Total	62,700

18. I am not able to give any estimate as to what would be the present day cost for erecting a similar plant.

19. I have not written off any amount for depreciation as my factory is a private concern.

I have also not kept any reserve fund; whatever profit is earned is being spent in extending the factory.

20 to 24. Nil.

(5) *Memorandum presented to the Tariff Board, by the Hyderabad Silk Mills, Ltd., Hyderabad, on the 22nd August, 1938.*

We beg to state the suggestion to the Government of India by the Indian Silk Manufacturers to afford protection to the Indian Silk Industry, by levying uniform duties on all Silk Yarn imports, be considered in the light whether Tussar Art Silk, Noil, Staple Fibre Yarns are commercially manufactured in this country to fulfil the demands of the Indian Silk Weaving Industry or not.

It is evident from the import statistics of the Spun Silk, Tussar, Art Silk and Staple Fibre Yarns that this has not at all been effective to arrest the increase in their imports from foreign countries which are well advanced in manufacturing them. Even in the case of Raw Silk the duties on the imports of said yarn may not be in urgent need, as otherwise opined by the Director of Industries of Mysore State, which is the principal seat of the Indian Sericultural Industry.

To give adequate nourishment to the Indian Raw Silk Industry by means of heavy prohibitive duties on the import of all kinds of Silk and Mixed Silk Yarns is justice misplaced as through this the Indian consumer pays high prices for the manufactured goods of Spun Silk, Tussar and Art Silk Yarns either of imported or home-made origin.

In our opinion The Indian Silk Weaving Industries can best be protected from foreign competition by imposing heavy duties on the imports of Silk, Art Silk and Mixed Silk piece-goods only. To levy equally heavy duties on the import of Spun Silk, Tussar, Art Silk and other Mixed Yarns is to discourage the Silk Weaving Industry of India and to make the Indian consumer pay heavy prices.

The present ineffective duties on all kinds of Silk Yarns have given space to the foreigners to flood the Indian market with Staple Fibre and other Mixed Yarns which are much less costly. These yarns can easily be dyed into the real and genuine shades of Tussar and Spun Silk and can be prosecuted through the market as real silk as our consumers can not at all easily distinguish the one from the other. Ultimately it is the Indian consumer who suffers from the sale of such false products.

To do proper justice to the Indian Silk Weaving heavy duties may only be levied against the import of Silk and Art Silk manufactured piece-goods from the foreign countries and also to allow a free entry for the Spun Silk, Tussar and Art Silk Yarns into India. Imposing duties on the Spun, Tussar and Art Silk Yarns is to entirely discourage the Silk Weaving Industry of India, which has to import the raw materials of Tussar, Spun or Art Silk manufactured in India and even the Raw Silk manufactured is not sufficient for its needs.

(6) *D. O. No. 164-P, dated the 23rd August, 1938, from Syed Fazalulla, Esq., Secretary to Government, Commerce and Industries Department to Assistant Secretary, Tariff Board.*

As desired by the President of the Tariff Board, I send herewith a copy of the chapter on "Weavers' Societies" of the Hyderabad Co-operative Finance Enquiry Committee's report.

WEAVERS' SOCIETIES.

The attached statement shows the position of 65 weavers' societies. Most of the loans which are now outstanding with the members were advanced to them at the time the societies were established. There were some societies which had also arranged for the purchase from the weavers of manufactured cloth and of its sale. The experiment proved a failure and the societies suffered heavy losses. All these societies are as a matter of fact credit societies with unlimited liability. During the last ten years' attention has been chiefly given to the collection of interest and principal and the execution of arbitration awards. The fact of the matter is that a large number of these societies are actually in the process of liquidation though they have not been actually declared as such.

The competition of mill-made cloth has made the position of weavers still worse. The Department of Industry has introduced new machinery and demonstration parties go round the villages to teach weavers the new method of production. New methods of dyeing are also introduced. It is, however, expected that the new process will spread more rapidly. The weavers are generally indebted to the local sahukar who supplies them the yarn on credit and takes back the cloth at an unfair price. A large number of weavers have thus for a long time been reduced to the status of wage-earners.

If a Co-operative Society is formed the weavers borrow the money from it to pay off their other debts or spend it otherwise and then again resort to borrowing from the sahukar. No society can function successfully unless all operations from the supply of raw material to the sale of the finished product are controlled by it.

Well-to-do weavers or sahukars have already adopted the 'factory' system of production where the weavers are employed on wages. The employer provides improved hand-loom, raw material and other necessary equipment, thus reducing the weavers to the position of wage-earners. Experience has shown that it is not possible to improve the condition of weavers through the agency of Co-operative Credit Societies. One of the ways in which this can be achieved is by enlisting them as members of Urban Banks which have been or are being established at different weaving centres.

In this connection we interviewed the Officiating Director of Industries and the Textile Expert and we came to the conclusion that these banks should work in close co-operation with the Department of Commerce and Industries which will run a depôt for the supply of raw materials (at competitive prices) to weavers who are their members. In order to safeguard against the misapplication of the funds advanced it is desirable that raw material should be supplied instead of cash, the bank being responsible to the Commerce Department for the price. The department may also be requested to undertake the supply of improved implements and new popular designs.

As regards the sale of the finished produce we propose that at one or two selected centres such as Narayanpet in Mahbubnagar District and Armoor in Nizamabad District local sales depôts may be started which can also be run by the Commerce and Industries Department which is the agency best qualified to establish contact between the seller and the buyer. This will have to be done as an experimental measure, the Government in the first instance meeting all overhead charges over and above the cost price for the first five years. In addition to the above we recommend that weaving factories may be started on small scale on the basis of co-partnership at important centres such as Paithan, Manwat, Narayanpet. The weavers will get employment in these factories. They will hold some shares in the factories with the prospect of becoming owners of the factories in due course. This will tend to arrest the migration of weavers into other employments and help to preserve the inherited skill of this class.

Statement showing the details of Weavers' Societies at the end of Amardad 1345 F.

No. of socie- ties.	No. of mem- bers	Amount due by members to societies.			Outstanding of Bank loans.			Govt. loans.
		Principal.	Interest.	Total.	Principal.	Interest.	Total.	
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
65	1,609	1,26,225	50,554	1,85,779	63,881	21,651	85,532	27,831

(7) *Statement showing the weight and value of silk imported into the Dominions from Azur to Ardibehist 1347 F. (6th October, 1937, to 4th April, 1938), furnished by the Nizam's Government on the 24th August, 1938.*

Description.	Quantity. in lb.	Value B. G.	Average per lb. B. G.
		Rs.	Rs. A. P.
1. Raw silk Foreign . . .	69,306	2,88,000	4 2 6
2. Raw silk Indian . . .	29,530	1,01,142	3 6 9
Grand Total Foreign and Indian raw silk . . .	98,836	3,89,142	3 15 0
3. Spun silk yarn Foreign	10,032	38,571	3 13 6
4. Artificial silk yarn . . .	3,20,492	2,44,286	0 12 2

(8) *Letter No. 7633, dated the 4th September, 1938, from the Director, Commerce and Industries Department, Hyderabad.*

As per your personal instructions to Mr. Naganath, Textile Expert, while in Aurangabad, to send a short descriptive note on the Himru and Mashru, etc., I have the honour to forward herewith a copy of short description of noted textiles of Aurangabad and Paithan.

SHORT DESCRIPTION OF NOTED TEXTILES OF AURANGABAD AND PAITHAN.

Aurangabad and Paithan have both been noted from olden times for their embroidery and gold silver lace work.

History.—Aurangabad is well known as having been the head-quarters of Aurangzeb when he was the Viceroy of the Deccan. In 1610, Malik Amber, Minister of Ahmadnagar Kings, founded this city and called it Fatehnagar. After his death in 1626, the power of the Ahmadnagar rulers declined in 1637, their territories were incorporated in the Deccan Suba of the Moghul Empire and Aurangzeb who was appointed the Viceroy of Deccan, changed its name to Aurangabad.

Paithan.—Paithan is one of the oldest cities in Deccan and it is said to have been the birth place and capital of Saliwahan with whom it connected the Era that bears his name.

Himru and Mashru.—These consist of cotton yarn for warp and silk for weft and are woven in spotted, striped or elaborate floral designs on satin ground. The term Mashru is derived from 'Shara' which means allowed in law and the material is so called the mixture of cotton with it makes it allowable for Muslims to wear when praying. The weaving of pure silk at devotions was prohibited by the Prophet. Himru is made into tunics and vests and used by men and Mashru is used by ladies for undergarments.

Kamkhab.—Kamkhab is silk cloth highly ornamented with gold or silver thread and is used for veils, head dresses and bridal robes. This cloth made at Paithan and Aurangabad was once very famous. For example the Persian Ambassador who arrived on a mission to Kutub Shahi, King of Golconda in 1603 and remained at the Court till 1609 took with him a piece of kamkhab, the manufacture of which had occupied the looms of Paithan for 5 years. The sole proprietors of the kamkhab looms are Barahs.

Brocades.—Very elegant and handsome reversible brocades and sari borders composed of a mixture of cotton and silk having very pretty devices of flowers and other designs ingeniously looped with gold and silver thread while weaving are produced at Paithan. Pieces of the description of material cost as much as a thousand rupees.

Hand woven gold thread and wire of Paithan and Aurangabad.—Bars of silver are thickly coated with gold leaves and are then passed through a series of holes drilled in a sheet plate until the bar of metal originally about 7 inches in length has been stretched to the length of several hundred yards. After becoming sufficiently fine, it is fit for the brocade on kamkhab manufacture, or if required for gold thread, it has to undergo the operation of flattening and is then termed as Badla. Six or eight bobbins having fine gold wire round upon them are fixed on spindles or a frame, the ends of wires being made to pass between the two sticks placed upon the edge, are led over the polished surface of a steel anvil, and there receives a slight blow from a small hammer whose face is equally highly polished. As it becomes flattened it is drawn along the same. Gold thread is made of silk thread covered by Badla. Round a long winding spindle provided with a hook at the top and loaded at the bottom is wound a certain quantity of pure silk thread, upon another similar spindle is wound the badla as it is prepared, which is made by attaching the end of the badla to the silk thread and rapidly twisting the winder on which it is wound, the end being led over a hook suspended from the ceiling. As the silk thread twists round, the badla is carefully adapted in its progress down so that it neither overlaps nor exposes the silk within.

8. Government of H. H. The Maharaja of Nawanagar.

(1) Letter No. 3497 of 1938, dated the 14th June, 1938, from the Dewan, Nawanagar State, Jamnagar.

With reference to your letter No. 510, dated the 14th May last, I have the honour to enclose herewith a copy of the Nawanagar State's replies to the questionnaire relating to the sericultural industry in advance, for your information.

1. (a) About 300, (i) 50, (ii) 75 and (iii) 10.
- (b) No.
2. From China and Japan through Bombay Dalals, Rs. 4 to Rs. 4-8.
3. Not locally manufactured.
4. Not applicable.
5. (1) by local labour, (2) by local special Agency, (3) by local special Agency and (4) by local special Agency and local labour.
6. 20-22
28-32
32-36
40-45
45-55 } Mussie Flecher Chineso.
7. Financed by themselves.
8. Only Brocades, Sadli Atlas and Safas.
9. 50,000.
- 10 & 11. Not applicable.
12. Atlas $\frac{3}{4}$ yard to 1 yard broad, 13 yards long. Safas 8 to 10 yards long, 1 yard broad.
13. See No. 9.
14. For lower class Hindu people.
15. Bombay through Dalals.
- 16 & 17. No.
18. Does not apply.
19. They buy the quality required.
20. No.
21. No Indian Silk is used.
22. Not applicable.
23. Not applicable.
24. The general opinion of the merchants was that it is not enough but they had no figures in support of their statement.
25. Rs. 15 per month per weaver. No figures maintained.
26. Partly but no figures to produce.
27. No.
28. In one Taka of Atlas—

	Rs.	A.	P.
(1) 50 tolas	5	0	0
(2)	0	6	0
(3)	1	0	0
(4)	2	8	0
(5) and (6)	1	2	0

10 0 0 per taka.

29. No.
30. Locally and in Gujrat up to Bombay.
31. Decreasing.
32. See replies above. Figures not maintained.
33. Not applicable.
34. No.

- (2) *Letter No. 3597 of 1938, dated the 22nd June, 1938, from the Dewan, Nawanager State, Jannagar, to the Secretary to the Hon'ble the Resident, Eastern India States Agency, Rajkot.*

With reference to your endorsement No. D. 211-38, dated the 7th June, 1938, below letter No. 544, dated the 24th May, 1938, from the Secretary, Tariff Board, I have the honour to inform you that the Nawanager State had so far not interested itself in the Sericultural Industry on the lines for which replies are required to the various questions put in the questionnaire and hence no reply is necessary.

- (3) *Letter No. D. 253-38 of 1938, dated the 7th July, 1938, from the Secretary to the Hon'ble the Resident for the States of Western India, Rajkot, to the Secretary, Tariff Board.*

I am directed to refer to your letter No. 639, dated the 27th June, 1938, addressed to the Secretary to His Highness the Maharaja of Nawanager through this Agency, and to say that it has not been forwarded as there are no mills mainly engaged in the manufacture of silk and artificial silk goods in the Nawanager State.

- (4) *Letter No. 272 of 1938, dated the 19th July, 1938, from the Dewan, Nawanager State, Jannagar, to the Secretary, Tariff Board.*

Subject: SERICULTURAL ENQUIRY.

With reference to your letter No. 613, dated the 17th June last, on the subject noted above, I have the honour to inform you that this State is not interested in the Sericultural Industry and hence the questionnaire is not returned herewith duly filled in.

9. Government of H. H. The Maharaja of Indore.

Letter No. 2680/Com. of 1938, dated the 29th July, 1938, from the Commissioner of Customs, Commerce and Industries, Indore, to the Secretary, Tariff Board.

With reference to your letter No. 544, dated the 24th May, 1938, forwarding therewith a copy of detailed questionnaire relating to the Sericulture Industry, I have the honour to say that the attempts made in the past by His Highness' Government to establish this industry in the State were not successful. It is not in existence at present and I am unable to deal with your questionnaire. I am, however, sending herewith a copy of a Memorandum* prepared in the year 1934 on the Sericulture Industry dealing with the efforts made here by Government for establishing the industry.

As regards the questionnaire on "Handloom Industry" received with your letter No. 510, dated the 14th May, 1938, I am sending herewith 6 copies of answers to it given by the Superintendent, Government Handloom Factory, Maheshwar.

* Not printed.

Answers to the questionnaire issued by the Tariff Board, regarding Handloom Industry.

(a) The total number of handloom weavers in this area, viz., Maheshwar is 375:—

- (i) Only 5 weavers out of the total number are engaged in weaving pure silk goods.
- (ii) 170 are engaged in weaving both cotton and silk mixed goods (i.e., in making cotton piecegoods with silk borders).
- (iii) 75 weave only cotton goods.

(b) There has been a decrease in the total number of weavers since 1st April, 1934.

2. The following are the places from which raw material is imported:— (1) Bangalore, (2) Shahapur, (3) Belgaum, (4) Surat and (5) Bombay. The raw material chiefly includes (a) raw silk, (b) gold thread, (c) spun silk, (d) art silk; the first two are generally of Indian make while the last two are Japanese products. The price paid per lb. for these is Rs. 7, 50, 5 and 12 respectively.

3. Yarn made from staple fibre is not used by the Maheshwar weavers in the manufacture of silk goods.

4. As staple fibre yarn is not used the tendency for it to oust silk is not present.

5. Out of the six operations, viz., (i) twisting, (ii) winding, (iii) boiling off, (iv) dyeing, (v) doubling, (vi) preparing the warp, (i) and (v) the weaver gets done from outside, (ii) and (vi) he performs himself, (iii) and (iv) he gets done from the Government Demonstration and Dyeing Factory, Maheshwar.

6. Spun silk is used for warp; spun and art silks are used for weft.

7. Some years back, no doubt, the position was that the organization of the industry was in the hands of the merchants who financed it. But that does not exist now.

8. Out of the eleven varieties of silk goods that the Tariff Board found were usually produced, the following are even now produced at Maheshwar:—

- (1) Sarees, (2) Dupattas, (3) Suitings and Shirtings, (4) Handkerchiefs, (5) Towels.

Sarees and Dupattas have no foreign competition in the market; there is practically no import of foreign goods of these varieties. Suitings and shirtings compete fairly well with similar foreign products.

9. The total handloom production of goods made from real silk is 100 yards per month and that of spun silk is 200 yards per month.

10. The weaver takes about 4 days to prepare a saree, 2 days for a dupatta and 1 day for 4 yards of suitings, etc.

11. 100 lbs. of raw silk, 20 lbs. of spun silk, 20 lbs. of art silk and 10 lbs. of gold thread are consumed per month.

12. The approximate length, breadth and price of the finished articles is like the following:—

Name.	Length.	Breadth.	Price ranging from
(1) Saree . . .	9½ Yds.	54" to 60"	Rs. 5 to Rs. 75 per Saree.
(2) Dupattas . .	5 "	50"	Rs. 2 to Rs. 12 per piece.
(3) Suitings and Shirtings . . .	...	30"	As. 12 to Rs. 2 per yard.

13. The approximate value of the total annual production of silk goods is Rs. 1,00,000.

14. Spun silk is used for making saree borders, suitings and shirtings only and thus in a sense its use is restricted to the production of these articles.

15. Weavers get their silk supply through middlemen and not directly from the reeler.

16. The merchants do not supply silk to the weavers on credit. All transactions are generally in cash.

17. The silk merchants sell direct to weavers and not through brokers or retailers.

18. The quality of Indian silk does not compare favourably with that of the imported Chinese silk. But this is made up by the lower price of the Indian silk and hence the merchants favour Indian silk.

19. The weavers are already getting silk yarn graded and sorted from outside.

20. The system whereby silk is supplied to weavers by a middle man to whom the finished article is returned for marketing, obtains at Maheshwar. But the weaver is paid only the labour charges.

21. The reasons pointed out by the last Tariff Board, as to why the weavers prefer to use imported silk, were the following:—Lack of enterprise and method in the marketing of Indian raw silk in the principal silk-producing centres—absence of serious effort to advertise the merits and varieties of Indian silk—variation in the unit of weight between the silk producing centre and the weaving centre, still hold good. The position has not changed since then and no effort has been made in that direction.

22. Indian silk is more difficult to wind than foreign silk and the loss in degumming is greater in the case of Indian silk than in the case of Chinese silk. There has been no improvement in the position observed by the last Tariff Board. There is also no new improved method of re-reeling.

23. For some time artificial silk due to its cheapness was replacing raw silk. But now the position is different. Raw silk is now cheaper than artificial silk.

24. Spun silk is decidedly a serious competitor to Indian raw silk because of the following advantage to the weaver:—It needs no re-reeling or twisting, thus enabling the weaver to save expenses on both these operations, and at the same time there is also no loss in degumming.

25. There is practically no variation since 1934 in the cost price, sale price and weaver's wages in respect of articles of cloth in this centre.

26. The present duties on imported silk fabrics, artificial silk goods and mixture do not seem to have produced a marked beneficial effect on the handloom weavers.

27. No new silk goods producing factories have been opened as a result of the protection to the sericulture industry.

28. The approximate cost of manufacture of silk cloth is divided into several items as below:—

	Rs. a.
(1) Bleaching raw silk	0 5 per lb.
(2) Winding	0 10 „ „
(3) Dyeing	1 0 „ „
(4) Warping	0 8 „ „
(5) Weaving pure sarco	1 0 „ yard.

The weavers are paid from Rs. 1-4 per piece to Rs. 10 per sarco (length 9 to 10 yards) depending also upon the counts of yarn and the quality of cloth.

29. The Co-operative Societies have not included in their programme the work of helping the weavers by way of advancing money on the finished product or obtaining for them (weavers) the supplies of material and other requisites.

30. The silk articles prepared at Maheshwar have no market there. But they find demand and are sold in Bombay, Poona, Indore, Baroda, Kolhapur, Sangli, Miraj, Gwalior and Nagpur. In most cases the weavers themselves go over to these places for selling their goods. Thus naturally the charges incurred thus are added to the cost of manufacture in determining the price.

31. The demand for natural silk is decreasing gradually.

32. The present sources for the supply of raw silk are:—Bangaloro, Shahapur and Belgaum.

33. Protection has not resulted in any appreciable turnover from imported to indigenous silk.

34. For the present there is nothing to be pointed out, otherwise than whatever is stated above, in regard to the effect on the handloom industry of the protection granted to the sericulture industry.

10. Government of H. H. The Maharaja of Patiala.

- (1) *Letter No. 225-G/38, dated the 12th July, 1938, from the Secretary to the Hon'ble the Resident for the Punjab States, to the Secretary, Tariff Board.*

SERICULTURE INDUSTRY IN PATIALA STATE.

With reference to your letter No. 510, dated the 14th May, 1938, on the above subject, I am directed to inform you that the Patiala Darbar have intimated that the State Sericultural Department was abolished several years ago. No sericultural work is now undertaken in the State, nor does there exist any organised silk handloom industry. As regards silk-weaving the Darbar are collecting authoritative figures which they hope to supply within the next month or so.

- (2) *Letter No. F. 225-G/38, dated the 20th December, 1938, from the Secretary to the Hon'ble the Resident for the Punjab States, Lahore.*

In continuation of my letter No. F. 225-G/38, dated the 12th July, 1938, I am directed to forward herewith duly answered by the Patiala Darbar the questionnaire relating to the Handloom Industry in Patiala State mentioned in paragraph 3 of your letter No. 510, dated the 14th May, 1938.

1. (a) The total number of handloom weavers in the State is approximately 6,500.

At present:—

- (i) about 24 are engaged in weaving pure silk goods.
- (ii) about 100 are engaged in weaving both cotton and silk mixed goods, and
- (iii) about 6,375 in weaving cotton goods only.

(b) No regular statistics are maintained and therefore the information asked for cannot be supplied.

2. The weavers in different parts of the State purchase yarn from different places. Generally artificial silk is purchased from Ludhiana, Amritsar, etc. Most of this yarn is of Italian or Japanese origin. The price paid per pound of artificial silk varies from 10 to 12 annas.

3. This kind of yarn is not being used.
4. No. The market estimation of staple fibre goods cannot be given.
5. None of these operations is performed by the weavers themselves in the case of pure silk, while in the case of artificial silk and cotton, all the operations with the exception of (ii) boiling off from (i) to (iv) are performed by the weavers or the members of their families.
6. Mostly artificial silk is used for warp and for weft.
7. The information asked for cannot be supplied.
8. The weavers still manufacture the following articles:—
 - (1) Ghibadam.
 - (2) Phulkaries.
 - (3) Sarees.
 - (4) Dupattas.
 - (5) Lungis.
 - (6) Suitings and Shirtings.
 - (7) Gown Pieces.

As regards foreign competition, the cheap manufactures of Japan are providing a stiff competition to all the above-mentioned articles with the exception of No. 3 Phulkaries.

9. No statistics are available.
10. Figures by categories are not available. On an average a weaver working for about 6 hours a day takes about 16 days to produce a finished piece of about 30 yards per day.
11. The kinds of silk used are pure silk, artificial silk and a silk, mixed silks and tassars. The quantities cannot be given.
12. The length of the finished article varies from 30 to 40 yards in length and from 27" to 54" in width. The prices vary with the quality and kind of the yarn used:—
 - (a) Pure silk from 12 annas to Rs. 1-4 per yard.
 - (b) Mixed silk from 6 annas to 8 annas per yard.
 - (c) Tassar from 5 annas to 8 annas per yard.
 - (d) Artificial silk from 2 annas to 5 annas per yard.

13. Statistics regarding the approximate value of the total annual production of silk goods are not available.

14. Spun silk is primarily used for saree and chaddar borders.
15. The weavers generally buy the yarn from local dealers and dealers of Ludhiana, Patiala, etc.
16. The merchants allow short period credit to some of the weavers and charge interest at high rates or make up for interest in their prices.
17. Generally through retail dealers.
18. Our weavers generally use imported silks because Indian silk yarn is comparatively more expensive.
19. As stated above there is hardly any Indian silk being used by the weavers here on account of its being too expensive.
20. There is no such system of middlemen. In the case of weaver-members of the Co-operative Societies, marketing of finished goods is done by the Co-operative Department.
21. Subject to what has been stated at No. 18 above the present position is about the same as at the time of the last Tariff Board Enquiry.
22. No answer to this can be given in view of what has been stated at No. 18.

23. The present position to-day is about the same.

24. It has already been stated that on account of its cheapness artificial silk and other silks have completely driven out the Indian silk so far as our weavers are concerned. It is, therefore, imperative, that the duty on imported silk may be increased if the Government wishes the Indian silk industry to stand on its own legs. The present duty has failed to afford adequate protection to Indian silk.

25. The weavers' wages for artificial silk have gone down from 1 anna 3 pies in 1936 to 9 pies in 1938 per yard.

26. The duty on imported silk fabrics should no doubt be raised considerably, because the cheapness of imported silk fabrics is hitting hard the poor handloom weaver with the result that the wages of an average handloom weaver are 1 anna 6 pies to 4 annas per day.

27. No factories have come into existence for the production of silk goods in the Patiala State.

28. Detail of cost of manufacture of artificial and other silk is as follows:—

	Rs.	A.	P.	
(1) Raw material	0	12	0	per lb.
(2) Twisting, winding and dyeing charges	0	4	0	„ „
(3) Weaving charges	0	7	6	„ „
(4) Finishing charges	0	0	4½	„ „
(5) Cost of labour exclusive of finishing, twisting, etc.	0	1	6	„ yard.

(These are rough figures only.)

29. The Co-operative Societies render financial aid to the members for the purchase of raw material and other expenses to be incurred in connection with these manufactures. The Co-operative Department further helps the Societies and their members in the purchase of raw materials and the sale of finished goods.

30. The manufactured articles are generally sold in the home markets, i.e., within the State and some of them are exported to Ludhiana, Karnal, etc.

31. The demand for natural silk is stationary.

32. Statistics are not available.

33. No.

34. The grant of protection to sericulture has hit hard the handloom industry by raising the price of imported silk yarn. The weavers do not use Indian silk for reasons mentioned above, and have to buy the imported silk at increased price. The protection granted to sericulture is inadequate.

11. Government of H. H. The Maharaja of Travancore.

(1) *Letter D. Dis. No. 1645 of 38/Dep't., dated the 21st July, 1938, from the Chief Secretary to Government of Travancore, Trivandrum.*

With reference to your letters Nos. 510 and 613, dated the 14th May and 17th June, 1938, respectively, regarding the questionnaire on the sericultural industry, I have the honour to forward herewith the replies, with six spare copies, to the Questionnaire, received from the State Director of Industries. It may be seen from the latter's letters Nos. 418 and 446, dated the 1st and 9th July, 1938, respectively, on the subject (copies enclosed) that there is very little sericulture industry in Travancore.

Enclosure I.

Answers to the Questionnaire furnished by the Textile Expert.

1. *General Questionnaire.*—No answer.

2. *Questionnaire for Local Governments:*

12. Our coating is 32 inches wide—cost Re. 1 annas 10 pies 6 per yard. Our coating is 30 inches wide—cost Annas 15 per yard. Sarees, Duppattas, Angavastrams 45" wide—Re. 1 annas 8 pies 9 per yard (without designs on the border) Border costs extra depending upon the designs and special threads (*viz.*, gold, etc., to be used).

14. Coatings, shirtings, angavastrams, duppattas, sarees.

15. Through yarn merchants in Bombay.

23. I think it is still the same as far as our weavers are concerned.

28. *Vide* copy of piece cost-book leaf attached. Weavers are paid here per yard.

53. As in question 15.

55. Being cheap, the artificial silk and staple yarn is preferred by public, the average mass.

56. Japanese and Chinese spun silk is imported into India by firms of Q. 15 and Q. 53.

57. We have so far used only spun silk. This is foreign as I think there are no facilities in India (Mysore is going to have one) manufacturing spun silk yarn and hence this variety must be an imported one. Spun silk is more handy for our handloom weavers as it is easy to reel and no wastage in degumming. Hence weavers here prefer spun silk to thrown or reeled silk (raw).

60. We also use waste silk yarn (imported varieties) in the manufacture of fabrics especially coating (and shirting in very rare cases). This is also got down from Bombay dealers.

67. No. But when some outsiders visit our institute (Workshop) and Sales Depôt, they very often buy our silk coating and shirting on account of its very good quality—both in appearance and durability in weaving—and cheapness.

Copy of piece cost-book leaf.

1. Silk Shirting 34"—100 yds. (2/120s. spun silk)—

	Rs.	Chs.	C.
Price of yarn (warp and weft) . . .	60	21	9 (for 16½ lbs.).
Winding charges at Chs. 3 per lb. . .	0	26	4
Warping charges at Chs. 7 per lb. . .	2	0	0
Weaving charges at Chs. 1½ per yard . .	5	17	8
	<hr/>		
	69	9	5
Profit (up to 25 per cent.) . . .	15	1	3
	<hr/>		
	84	10	8
	<hr/>		
Finished yards 90—Price per yard . .	0	26	4 (Approx. As. 15)

2. Silk Saree or Angavastram: 45"—100 yds. (2/120s. spun silk)—

	Rs.	Chs.	O.
Price of warp and weft (21 lbs.)	77	9	10
Winding charges at Chs. 3 per lb.	1	3	8
Warping charges at Chs. 7 per lb.	2	17	8
Weaving charges at Chs. 6 per yard	19	8	0
	100	10	10
Profit	25	2	10
Extra	20	17	6
	146	2	10
Finished yards 93½—Price per yard	1	15	12

3. Silk Coating: 32"—100 yards. (2/60s. spun silk)—

	Rs.	Chs.	O.
Yarn price (28 lbs.)	76	1	12
Winding charges at Chs. 3 per lb.	1	5	12
Warping charges at Chs. 7 per lb.	4	5	4
Weaving charges at Chs. 3½ per yard	11	0	0
	92	12	12
Profit and Extras	56	1	4
	148	14	0
No. of finished yards 88—Price per yard	1	19	4

Enclosure II.

Copy of letter No. 418, dated the 1st July, 1938, from the Director of Industries to the Chief Secretary to Government.

With reference to your docket R. O. C. No. 4150/38/Deopt., dated the 26th May, 1938, and 4th June, 1938, forwarding copies of questionnaires on the sericultural industry, I have the honour to report as follows:—

The questionnaires relate to the sericultural industry and are intended to elicit information in regard to the progress of the industry during the period in which protection has been in force. It is also required that answers are to be given to questions dealing with matters with which we are directly acquainted. A perusal of the questions will show clearly that information has been called for relating to the rearing of silk worms, the quality, etc., of the silk reeled from cocoons, how this silk affects the weaving industry and how it is affected by the imports of foreign silk, the respective prices of foreign and indigenous silk, etc.

There is very little sericultural industry in Travancore. The rearing of silk worms and reeling of silk, except for some work in the experimental section (under the Department of Agriculture) which was abolished in 1107, are not prevalent here. Hence it is not possible to obtain satisfactory answers to the questions.

Copies of the questionnaire were sent to the South Travancore and Trivandrum Chambers of Commerce as the weaving industry is mostly confined to South Travancore, to the Excise Commissioner, the Director of Agriculture, and the Textile Expert. These have not been able to provide

answers to the questions and what little they have given has not been of any great help.

The Textile Expert has given answers to some of the questions and they are appended herewith.

Since Travancore is very little concerned with the industry in question, it is not possible to furnish answers in the way the Tariff Board requires.

Enclosure III.

Copy of letter No. 446, dated the 9th July, 1938, from the Director of Industries to the Chief Secretary to Government.

With reference to your letter R. O. O. No. 4150/38/Devpt., dated the 7th July, 1938, regarding Questionnaire on Sericultural Industry issued by the Indian Tariff Board for importers and traders, I have the honour to inform you that it was not found possible to get answers to the questions referred to therein, as Travancore is very little concerned in sericultural industry.

(2) Letter No. 1668 of 38/Devpt., dated the 22nd July, 1938, from the Chief Secretary to Government, Government of Travancore, Trivandrum.

With reference to your letter No. 639, dated the 27th June, 1938, regarding the questionnaire for silk and artificial silk goods manufacturers, I have the honour to forward herewith a copy of letter No. 469, dated the 18th July, 1938, from the State Director of Industries stating that it is not possible to have answers to the questionnaire.

Copy of letter No. 469, dated the 18th July, 1938, from the Director of Industries to the Chief Secretary to Government.

With reference to your letter R. O. C. No. 5890/38/Devpt., dated the 15th July, 1938, forwarding copies of a questionnaire from the Tariff Board, regarding silk and artificial silk goods manufacture, I have the honour to inform you that there are no mills in the State mainly engaged in the manufacture of silk or artificial silk goods. There are some small scale weaving concerns where silk or artificial silk yarns are occasionally used for weaving and even that forms only a very small proportion of the material used in weaving, hence it is not possible to have answers to the questionnaire. Eight copies of the Questionnaire forwarded are returned herewith.

12. Government of H. H. The Maharaja of Cochin.

- (1) Letter No. F. 3-16745/1113, dated the 28th July, 1938, from the Secretary to the Government of Cochin, to the Secretary, Tariff Board, through the Resident for the Madras States, Trivandrum.*

PARTICULARS REGARDING SERICULTURAL INDUSTRY.

- Reference:—*1. Your letter No. 510, dated the 14th May, 1938, forwarded by the Resident for the Madras States with endorsement N. Dis. 1440/38, dated the 23rd May, 1938.
2. Your letter No. 544, dated the 24th May, 1938, forwarded by the Resident for the Madras States with endorsement N. Dis. 1559/38, dated the 3rd June, 1938.
3. Your letter No. 613, dated the 17th June, 1938, forwarded by the Resident for the Madras States with endorsement N. Dis. 1785/38, dated the 24th June, 1938.

I have the honour to state that this State is not very much engaged in silk industry. As such, answers to individual questions are not useful as they will not be based on experience. Hence the following general information is furnished.

2. There are about 2,500 handlooms working in the State at present and some 5,000 people are engaged in the industry. Almost completely they are using cotton yarn of counts varying from 10's to 150's. Use of silk is limited to borders; and even for this purpose gold thread is more in demand than silk. It may be that a few looms weave pure silk fabric to meet a special demand, but this is only very rare. As the demand is occasional, yarn dealers do not stock silk and the special demand will be met by specially ordering the requirements from the stockists in the South Indian Handloom centres like Madura, Salem, etc.

3. In this State, only in the Girls' Industrial School attached to the Convent, Ollur in Trichur Taluk, there is a small silk farm maintained for teaching purposes and not with any commercial intentions. Except for this, there is no sericulture in the State. In this Industrial School, about 50,000 cocoons of mulberry species are raised annually. They yield 11 to 12 lbs. of raw silk. The establishment rears worms from its own seeds, but once in two years it gets tested D. F. seeds from Mysore Government Grainages. Eggs are multivoltine and one laying produces 300—400 worms. The Convent gets the Mulberry leaves from bushes planted in three acres of its own garden.

4. As there is not any big demand for silk yarn for weaving, there are no wholesale importers. Consumption of silk fabric is on the increase, but mostly the demand is for cheap varieties of artificial silk. In this case also there are no wholesale traders importing directly from foreign countries. The wholesale importers and stockists of Bombay, Madras, etc., supply the requirements of local dealers. Preference for cheaper varieties is working to the disadvantage of the Indian product.

5. There is no Co-operative Society in the State consisting of weavers of silk or rendering assistance to them directly or indirectly.

(2) *Letter No. L. Dis. 2025/13, dated the 29th July, 1938, from the Secretary to Government in charge, The Huzur Secretariat, Government of Cochin, Ernakulam, to the Secretary, Tariff Board, through the Resident for Madras States, Trivandrum.*

MANUFACTURE OF SILK GOODS.

Reference:—Your letter No. 639, dated the 27th June, 1938, forwarded by the Resident for Madras States with endorsement N. Dis. 1897/38, dated the 4th July, 1938.

I have the honour to inform you that there are no establishment in this State engaged in the manufacture of silk and artificial silk goods.

13. Government of H. H. The Maharaja of Gwalior.

Letter No. 1967/17A/5338, dated the 24th August, 1938, from the Resident at Gwalior and Political Agent for the States of Rampur and Benares, Gwalior Residency, Gwalior.

I have the honour to refer to the correspondence ending with your letter No. 823, dated the 3rd August, 1938, and to inform you, on the authority of a communication received from the Gwalior Darbar, that there is no sericultural industry in the Gwalior State and therefore no information can be furnished on the subject.

2. They have however, sent me the enclosed copy of a note on handloom industry in the Gwalior State submitted by the Gwalior Chamber of Commerce in case it may be of interest to the Board.

Copy of a Note regarding Handloom Industry.

The questions pertaining to the handloom industry cannot be fully answered item by item as the handloom industry in Gwalior State is on its ebb, and there are very few people interested in it.

The available information with regard to the questions concerning the handloom industry is given below:—

- (1) The total number of weavers throughout the State is about 1,500. Some are located in Chanderi and are engaged in artistic weaving and the remaining are scattered in the various districts of the Gwalior State, exclusively engaged in ordinary handloom cloth weaving. The weavers, however, are not weaving pure silk goods. Though the number of such weavers is increasing but the number of artistic weavers is down-right.
- (2) The weavers are exclusively working on piece-work basis for the interests of the merchants who are importing foreign silk (China, Japan) for their manufacture.
- (3) The weavers are doing all sorts of operations needed in cloth weaving, i.e., twisting, winding, dyeing, doubling, preparing the warp, etc.
- (4) The Chinese silk is used for warp and cotton is weft in Saries and Dupattas, etc.
- (5) The position as reported by the last Tariff Board is still unchanged. The merchants are financing this industry as the weavers are not in a position to avail such aid through other sources nor are they keen about it. The weavers are getting fair prices for their labour from the merchants but this system cannot be beneficial for the development of handloom industry. In the opinion of this Committee, the Government should come forward to finance this industry on some suitable basis and introduce some technical skill in the weavers through Government experts.
- (6) All the varieties of the goods as reported by the last Tariff Board are still being woven besides Khan pieces, turbans, safas, dhottis, blouse pieces, etc. The merchants are getting reasonable prices for such hand-made products which are not made by the mills.
- (7) It is not possible to mention specific number of days required to produce the finished articles in each category as asked in clause No. 10. Generally 3 to 4 days are sufficient to weave ordinary piece cloth while the period required for artistic manufactures ranges from 1 to 4 months according to the quality of the products. It is hoped that the information given above will generally satisfy the questions Nos. 1 to 20.

14. Government of H. H. The Nawab of Bhopal.

Letter No. 4260-D. of 1938, dated the 5th August, 1938, from the Political Agent in Bhopal, Bhopal.

Subject:—QUESTIONNAIRE RELATING TO THE SERICULTURAL INDUSTRY.

With reference to your letters Nos. 510, 544, 613 and 639, dated the 14th May, 24th May, 17th June and 27th June, 1938, respectively, addressed to the Secretary in the Political Department, Government of His Highness the Nawab of Bhopal, I have the honour to inform you that the Political

Member, Bhopal Government, intimates that the questionnaire relating to the Sericultural Industry do not concern the Bhopal State as there is no Sericultural Industry or mills manufacturing silk or artificial silk cloth in the State.

15. Government of Bengal.

- (1) *Letter from the Secretary, Tariff Board, to the Secretary to the Government of Bengal, Agriculture and Industries Department, Calcutta, No. 607, dated the 16th June, 1938.*

I am directed to refer to my letter No. 544, dated the 24th May, 1938, with which was forwarded a copy of the questionnaire dealing with the Sericultural Industry drawn up by the Tariff Board. Question 15 deals with the cultivation of the mulberry tree on which the silkworms are usually fed. The Board, however, understands that the eri worm which is found in your province is fed on the leaves of the castor oil plant. The Board would therefore be grateful if you will supply the information asked for in question 15 of the questionnaire in respect of mulberry leaves for leaves of the castor oil plant also.

- (2) *D. O. No. 6924-T., dated the 27th June, 1938, from Mr. A. N. Sen, Inspector of Technical and Industrial Institutions, Department of Industries, Bengal, to the President, Tariff Board.*

You are perhaps aware that the Sericulture Department of the Government of Bengal is now under the control of the Director of Industries, Bengal. It is being worked under the guidance of Mr. C. C. Ghosh, the Deputy Director of Sericulture, Bengal, whose Headquarters are at Berhampore. Mr. Ghosh is preparing replies to the questionnaires for submission to you in due course. He will, I am sure, render you all possible help in connection with the present Tariff Enquiry.

I may, however, mention for your information that Sericulture in Bengal is at present carried on in the districts of Malda, Murshidabad, Bogra, Bankura and Birbhum—Malda and Murshidabad being the most important of the silk districts. Rearing is mainly concentrated in the interior of Malda, where indigenous reeling can also be seen. Islampur in Murshidabad and Vishnupur in Bankura districts are important weaving centres. Filature reeling after the European factories can also be seen in Murshidabad District (Jangipur). Eri silkworm rearing is done in the district of Bogra and Rajshahi. You may perhaps be interested to see these places along with the newly started reeling institute at Malda and the Conditioning House at Howrah. The silk Mills of Messrs. Ariff & Co., of over 50 years standing, with over 150 looms and other appliances can be visited at Calcutta and most valuable information regarding the industry can be obtained from Mr. Ariff, the proprietor, who also had, till recently, rearing and reeling establishments of his own in the Murshidabad District.

- (3) *Letter No. 4657, dated the 12th July, 1938, from the Government of Bengal, Agriculture and Industries Department, Industries Branch, Calcutta.*

With reference to your letter No. 544, dated the 24th May, 1938, I am directed to forward, herewith, the replies (with 5 spare copies) of this department to the general questionnaire issued by the Tariff Board regarding the sericultural industry.

REPLIES TO THE GENERAL QUESTIONNAIRE.

1. There has been no progress in the industry. On the other hand there has been a gradual decrease in mulberry acreage and number of rearers, both of which however showed slight increase in 1937-38.

The Department has however been successful in introducing (1) higher yielding new races of worms, (2) new methods of mulberry cultivation, (3) improved methods of reeling, in starting, (4) research for mulberry and worms and for diseases of both, (5) a raw silk conditioning house and in arranging for (6) establishment of a paper technological institute for the manufacturing stage of the Industry.

The Sericultural Industry is carried on in the districts of Malda, Birbhum and Murshidabad on a large scale and in the districts of Bankura, Midnapore, Rajshahi and Bogra on a small scale.

Number of people who are dependent upon the Industry are in—

	Entirely.	Partly.
	(a)	(b)
(i) Silkworm rearing . . .	79,079	...
(ii) Reeling . . .	5,535	...
(iii) Matka, Eri and Keta spinning . . .	...	12,700

2. The cocoon growers generally grow their own mulberry, rear cocoons and sell the cocoons on their own account. Only a small number of them are helped with agricultural loans and advances by reeling concerns.

The majority of the reelers are financed by raw silk merchants in the shape of short term advances on condition that the raw silk produced is given to the financier. The merchants market the raw silk.

Tasar is reeled by the families of weavers.

Matka, eri and kete are spun by the women folk of rearers and cultivators in spare time in the midst of household work for small dealers who actually advance pierced cocoons and pay for spinning labour.

3. Maximum production attainable under present conditions is cocoons 76,560 maunds.

Raw silk—5,100 mds. or 408,000 lbs.

Actual figures of each of the last 5 years are not available.

Approximate figures of 1937-38 are as follows:—

Cocoons.	Value.	Silk.	Value.
43,000 mds.	Rs. 9,00,000	230,000 lbs.	about Rs. 11,50,000

The variation is explained by the abnormal conditions of the year. The principal chhotopolu crop in November-December failed practically wholly. There were also long drought and floods.

4. Silk content of typical varieties of cocoons is given in Annexure I.

5. Nistari, Chhotopolu, Barapolu, Nistid and Nismo are reared.

6. Cost of constructing and equipping a four ghora rearing house (64 trays or 200 lbs. of cocoons capacity per crop) with veranda on one side by ordinary rearers—

	Rs.
With mud wall, thatched roof, kutcha floor, doors, windows and ventilators made of local wood and fitted with wire-gauze	200
Equipment of the above house with—	

	Rs.
(i) Dallas, trays 64	32
(ii) Chandrakies 50	50
(iii) Miscellaneous	18

100

Mud wall lasts for about 25 years.

Roof lasts for about 10 years.

Thatching lasts for about 5 years.

Doors, windows and ventilators last for about 10 years.

The above cost is the minimum under the present circumstances.

Improvements in regard to ventilation, air and light have been effected for a house of similar capacity by constructing it on a new plan in Government nurseries with sundried bricks. It costs about Rs. 450 for construction alone plus Rs. 150 for equipment.

7. Results of rearing different races of worms are given in Annexure II.

8. No new method of rearing has been adopted.

9. All worms are reared from local seed. Organisation for production of seed is generally separate from that for production of cocoons.

In Bengal only seed cocoons are used for cocoon crops. At present there are 3 agencies for seed cocoon production, viz.:—(1) Government nurseries, (2) Selected rearers and (3) Private seed-growers. In Government and selected rearers' nurseries the seed cocoons are produced from cellular eggs. The private seed-growers do not use cellular seed.

	Government Nursery.	Selected rearers' Nursery.	Villages.
	As. P.	As. P.	As.
The cost of seed per oz.	5 0	2 6	2

10. No legislation has been adopted to provide disease-free seed.

11. Multivoltine worms are mainly reared. Rearers of Birbhum and a part of Murshidabad district rear univoltine worms once a year in addition to multivoltine worms. Four to five crops are raised in a year.

Average number of worms from an ounce of seed actually obtained in 1937-38 are:—

Nistari	18,000 ripe worms (140 layings).
Chhotopolu	9,000 ripe worms (140 layings).
Barapolu	17,000 ripe worms (130 layings).

50,000 kahan seed cocoons seem to be used by rearers annually. This comes to about 180,000 oz. at 140 layings for 1 oz. of seed.

12. No foreign races have been acclimatised.

13. (i) In the production of cellular seed, dead and diseased moths are eliminated.

(ii) Pebrine is combated by the use of cellular seed and disinfection.

14. A reference is invited to the reply to question 3. The wastage in 1937-38 was abnormally high but ordinarily wastage is about 25 to 30 per cent.

Production of disease-free seed has been increased and propaganda carried out and mass disinfection of the rearing houses adopted in order to minimise loss.

15. (i) Worms are reared on mulberry leaves.

(ii) Mulberry is generally cultivated by the man who rears the worms either on his own land or on leased land. It is also cultivated by a few for sale of leaves to rearers.

(iii) The details are given in Annexure III.

(iv) The quantity of leaves required to feed the worms from 1 oz. of seed is about 850 lbs. with twigs.

(v) The cost of the above quantity of leaves at 8 pias per lb. comes to Rs. 3-8.

(vi) No other leaf is used for feeding mulberry silkworms.

Tariff Board letter No. 607, dated the 16th June, 1938.

Eri worms are fed on castor leaves. Rearing of these worms is carried out generally by old women who grow only a few to about 30 plants near their houses and utilise the leaves.

16. (a) Experiments are being made since 1937.

(b) (i) Normally four crops but exceptionally 5 to 6 crops are produced annually from indigenous mulberry (varieties of *Morus indica*).

(ii) Trees properly grown are preferable.

(iii) Details of cost are given in Annexure IV.

17. Figures for 5 years are not available. Price paid is about As. 14 per maund on the average in 1937-38. As a rule rearers rear worms with their own leaves and purchase leaves when the supply runs short. Under such circumstances the price paid is always high. Mulberry is not grown as a commercial crop.

19. (i) Experiments are being made to find out methods for improving the quantity and quality of mulberry.

(ii) The cultivation cost has been reduced mainly due to reduction in wages of labour. The department is also introducing tree mulberry amongst the rearers in order to reduce cost of leaf.

20. The same defects continue.

21. (i) Bengal is not concerned with univoltine worms except the indigenous Barapolu which is practically of the same quality as the multivoltine races.

(ii) About 28 lbs. of cocoons are obtained from 1 oz. of seed used in the case of Nistari, Chhotopolu and Barapolu.

(iii) In a Government nursery about 240 lbs. of cocoons have been obtained by feeding worms with leaves of an acre of tree mulberry.

(iv) The above figures are for multivoltine worms.

(v) In Bengal new fixed races, viz., Nistid yellow and white and Nismo (yellow) have been introduced.

22. (i) Univoltine cocoons contain more silk than multivoltine ones.

(ii) Fixed hybrids have already been introduced and further experiments are in progress.

(iii) Results are given in Annexure V and are satisfactory.

23. (a) Figures for cost of cocoon production for the last 5 years are not available. Results of census taken in 1937-38 are given in Annexure VI.

(b) Details of works cost for cocoons from 1 oz. of seed.

	Malda.	Birbhum.	Murshidabad.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
1. Cost of seed . . .	0 5 0	0 5 0	0 5 0
2. Cost of labour . . .	3 11 6	4 8 9½	5 14 7
3. Cost of food for worms	3 8 0	3 8 0	3 8 0
4. Cost of appliances . .	0 4 0	0 4 8	0 6 3½
5. (a) Other expenses (labour) . . .	0 3 1½	0 5 4½	0 8 9½
(b) Disinfectant . . .	0 0 5½	0 4 8	...
Total . . .	8 0 1	9 4 6	10 10 8

N.B. -In making the above calculations the figures obtained in the abstract census for rearing (Annexure VI) have been taken as the basis.

But as these figures are arrived at by taking actual hours of work and calculating wages at very low rates for those hours only the labour charges shown in the census have been doubled in this statement as strict adherence to actual hours of work and payment for those hours are not feasible in practice. The census figures also do not take into account failure or poorness of cocoons due to adverse climatic conditions, floods, drought and diseases of worms and mulberry. In this statement the cost of leaf has been calculated at 8 pies per lb. as explained in the abstract census for mulberry cultivation (Annexure IV).

24. *Price of cocoons per lb.*

Year.	Minimum.		Maximum.
	As.	P.	As.
1933-34	2	6	5
1934-35	2	6	5
1935-36	2	6	5
1936-37	2	0	6
1937-38	2	6	7

25. (i) The breeder of worms does not keep his cocoons for reeling. Some of the reelers who are breeders as well however reel their own cocoons.

(ii) The breeders sell the cocoons all at once irrespective of the state of market.

(iii) For average prices, please refer to the reply under Question No. 24.

(iv) Outturn of silk and waste from 100 lbs. cocoons—

Year.	Average outturn of silk. Lb.	Average outturn of waste. Lb.	Value per lb.	
			Silk. Rs. A. P.	Waste. As. P.
1933-34	5.9	4.1	3 10 3	2 3
1934-35	5.9	4.1	3 15 6	2 3
1935-36	5.9	4.1	4 3 3	2 3
1936-37	5.9	4.1	4 13 0	2 0
1937-38	5.9	4.1	5 15 0	4 0

26. The entire production is reeled by hand on single or multiple charkas.

27. (i) Figures under (a) and (b) are not available.

(ii) About 11,000 cocoons yield 1 lb. silk.

The answer relates to silk reeled by hand in a country charka. The methods of charka reeling are—

(a) Cocoons are cooked and reeled in the same basin by the reeler.

(b) Basins are heated by wood and coal fire and sometimes by steam.

(c) A turner is employed for turning the reels.

(d) Breakages are not knotted usually.

(e) Cleaning by hand is undertaken by turner when the reeler is busy cooking the cocoons or finding out ends.

28. (i) There are only about a dozen of large reeling concerns having about 10 to 50 basins. Only one has more than 100 basins. Such concerns have their own stores, godowns, etc. Others are mostly individual reelers

having one or only a few basins. Such reelers have hardly proper godowns, etc. The cost of a country charka and an oven is nearly Rs. 20. The thatched sheds cost from Rs. 10 to Rs. 100 according to size. The charka lasts for about 10 years with occasional repairs.

(ii) For outturn, please see the reply to Question 29.

29. Five years' figures for works cost for a lb. of raw silk are not available. Actual census taken in 1937-38 is enclosed as Annexure VII.

33.

	1933-34.	1937-38.
Rearing of cocoons	18,592 families .	15,300 families or 79,079 persons.
Reeling	10,000 persons .	4,600 „
Spinning of Matka, eri and kete	15,000 „ .	12,700 „
Weavers	2,000 „ .	Silk—6,000 „ Matka—950 „ Tasar—will be submitted later.

35. (1) (a) Please refer to Annexure VII.

(2) The reelers are not exactly inefficient. With proper cocoons, machinery and organisation they are able to produce as good silk as in any other country.

(3) (i) For reelers—Recently Peddie Silk Reeling Institute has been started at Malda.

35. (3) (ii) For rearers—Some are employed in nurseries as day labourers while about a dozen students are trained with stipends in two Sericultural classes attached to two Government nurseries. Small grants-in-aid are paid to seven Primary Schools for preliminary Sericultural training to sons and daughters of rearers.

40. Throwing is not carried out as a separate business.

	Per lb.
	Rs. a.
41. (i) Price of raw silk twisted by hand	5 0 to 6 8
(ii) Twisting	1 1
Winding . . . . .	...
(iii) Boiling off	0 2

42. (i) No improvements have been effected. Government has however established a Reeling Institute to remedy these defects.

(ii) No re-reeling is practised but it has been introduced in the Peddie Reeling Institute.

43. As. 5 per lb. for re-reeling in the local hand method. The loss per seer is 1 chittak.

44. No silk is re-reeled.

45. (a) Preparation of cloth.
 (b) Embroidery purpose.
 (c) Thread for angling.
46. (i) Figures for the whole of India are not known.
 (ii) Please refer to the reply given under Question No. 3 for production of raw silk.
47. The quantity of silk used locally is not known.
48. (i) There has been no improvement in export of raw silk.
 (ii) A raw silk conditioning house will help to stimulate trade.
50. Products of the Sericultural Department are sold locally.
51. The condition remains the same. New facilities have not been provided.
54. Canton filature yellow and white—between 15 to 30 deniers and Japanese re-reeled yellow and white between 10 to 30 deniers compete seriously with Bengal silk. Comparison between these varieties with Bengal silk is not possible as the latter is not sorted or graded into separate qualities.
55. Only recently manufacturing of artificial silk has been undertaken in Bengal. As the products are passed off as real silk among people who are ignorant of differences of pure and artificial silk, the latter has now come to compete with natural silk.
56. A Shibganj weaver has given us a sample of Japanese white re-reeled silk of 10-12 denier which he said was being sold at Rs. 5-14 per lb. at Shibganj (including freight, profit and duty). We consider that cost of production of such a quality of silk must be higher than the price at which it is being sold. Sample of the silk is sent separately. Actual facts and figures are difficult to be produced.
57. Imported silks do not compare favourably with Bengal silk in lustre or colour. But they are superior in winding quality and finish and easier to manipulate. It is very difficult to state the difference in price due to these considerations.
58. That low rates of Japanese and Chinese exchange have accentuated competition is evident. Actual figures are however not available.
59. No imported silk competes with tasar, Muga and handspun eri.
60. It is not known how imported silk waste is used.
61. Percentage varies with the quality of silk reeled and quality of cocoons. The following figures have been obtained by census:—

	Malda.			Murshidabad.	Birbhum.	
	Tana.	Verno.	Ghora.	Tana.	Khamru.	Steam Filature.
Waste represent what percentage of raw silk.	103	59	0	75	34	82

62. The prosperity of reeling industry depends upon the price of silk waste. The price in June, 1938, is Rs. 30 per Bengal maund.

63. The same condition exists. The Bengal Sericultural Department has just introduced two hybrid races which are found to give less waste.

64. No spun silk mill has been started.

69. (a) The amount of protection should be determined on the basis of As. 6 per lb. of cocoons or Rs. 6-8 per lb. of raw silk whichever is higher as the minimum cost of production.

(b) A specific or *ad valorem* duty should be imposed on imported raw silk and silk yarns to ensure the above prices.

(c) The minimum period should be about 10 years.

The reasons are the following:—

It is possible to reduce cost of production and improve quality only through improved methods of mulberry cultivation, replacement of bushes by tree mulberry and evolution and introduction of improved cocoons. All these items depend on fairly long-continued research. Under such circumstances protection for a short period is hardly of much help.

70. (a) Silk Textile Industry will benefit.

(b) The Silk Textile Industry in Bengal is really a handloom industry.

71. Detailed relevant facts are given in Annexure VIII.

72. The protection granted has not proved beneficial.

73. Reference paragraph 200 of Board's report:—

(i) The Department has established a research section for improvement of mulberry and cocoons and for investigation of diseases both in silkworm and mulberry.

(ii) For improvement of reeling Japanese treadle machine and filature machine with re-reeling and up-to-date cooking and testing machines have been installed in the Silk Reeling Institute at Malda.

(iii) The Berhampore Silk Weaving Institute is being raised to the status of an up-to-date Technological Institute.

Reference paragraph 201 of Board's report.—No legislative action has been taken for enforcing use of disease-free seed.

Reference paragraph 202 of Board's report.—No new methods have been adopted as regards Sericultural education. But a scheme for starting a proper Sericultural Institute for training of staff and rearers is under consideration.

Reference paragraph 203 of Board's report.—No improvement has yet been effected as regards marketing organisation.

Reference paragraph 204 of Board's report.—A conditioning house has recently been started.

Reference paragraph 205 of Board's report.—No form of subsidy to help the industry has been adopted.

Reference paragraph 206 of Board's report.—The Bengal Sericulture Department has introduced methods of collecting statistics of mulberry area, rearers and extent of rearing.

74. Protection for a further period of about 10 years will make it possible to reduce the cost of production.

(i), (ii) & (iii) From relevant figures stated above it has been shown that the cost of production of cocoons per lb. is now about As. 5-6 on the average with the present multivoltine worms and bush mulberry. The cost of production of leaf is estimated at 8 pice per lb. The cost of leaves from trees is expected to be about half this amount. The yield from 100 layings of Nistari and Chhotopolu races is about 20 lbs. The new races Nisted and Nismo are expected, on the strength of actual results, to yield about 40 lbs. from 100 layings. When measures to ensure establishment of tree mulberries and successful rearing in all seasons of the year are completed it is expected that the cost of production may be reduced by about 50 per cent.

ANNEXURE I.

(Reference to Question 4.)

	Rainy season (July to September).				Pre-winter season (October to November).				Winter season (December to January).	
	Nistari.	Chhoto-polu.	Nistid.	Nismo.	Nistari.	Chhoto-polu.	Nistid.	Nismo.	Nistari.	Chhoto-polu.
Silk content in a cocoon in grains.	1.1	1.6	2.3	2.2	1.3	1.6	2.2	2.4	1.1	1
Average length of filament of a cocoon in yard.	365	249	494	525	344	284	516	576	225	203
Average weight of filament in milligrams.	45	54	103	109	59	70	104	135	44	45
Average denier of filament	1.1	2.1	1.9	1.9	1.6	2	1.6	2	1.3	1.7

	Spring season (February to March).				Hot weather season (April to June).			
	Nistari.	Chhoto-polu.	Nistid.	Nismo.	Nistari.	Chhoto-polu.	Nistid.	Nismo.
Silk content in a cocoon in grains.	1.1	1.1	1.5	2	1	.7	1.5	..
Average length of filament of a cocoon in yard.	204	126	327	388	191	135	418	..
Average weight of filament in milligrams.	41	28	81	97	38	30	84	..
Average denier of filament.	1.4	2	2.2	2.2	1.8	2	1.9	..

These figures are calculated from a large number of rearings both in nurseries and rearers' houses.

ANNEXURE II.

(Reference to Question 7.)

Race or Variety.	No. of days.	No. of cocoons to a lb.	
Nistari . . .	22 to 35	700 to 800	} Length of filament and denier supplied in Annexure I.
Chhotopolu . . .	24 to 40	700 to 800	
Barapolu . . .	30	600 to 700	
Nistid . . .	23 to 36	350 to 600	
Nismo . . .	23 to 36	300 to 550	

ANNEXURE III.

[Reference to Question 15 (iii).]

Statement showing the cost and yield of leaf from an acre of land:—

(a) Cost of preparing (Planting)—Rs. 97.

(b) Kind and quantity of manure used—

Kind.	Quantity.
Farmyard	60 cartloads × 10 mds. = 600 mds.
Tank silt and Bhode (rotten aquatic weeds).	600 mds.

(c) No. of trees or bushes to the acre—Bushes are generally continuous, the row being 1½ to 2 ft. apart.

(d) Yield of leaf per acre—About 200 maunds with twigs.

(e) Average life of bush—Practically perennial.

Trees are not in general use.

ANNEXURE IV.

Abstract Census of cultivation of leaf.

[Reference to Question 16 (iii).]

	Mulda.	Murshidabad.	Birbhum.
1. Period of observation . . .	November 1936 to October 1937.	1st April 1937 to 31st March 1938.	May 1937 to 31st March 1938.
2. Area under observation in bighas.	84 Bighas, 16 kattas.	16 Bighas, 10 kattas.	14 Bighas, 14 kattas.
3. Cost of labour for cultivation —			
(i) Family	Rs. 50 15 0	Rs. 55 4 6	Rs. 35 11 6
(ii) Hired	Rs. 819 4 6	Rs. 131 15 0	Rs. 39 14 6

ANNEXURE IV—*contd.**Abstract Census of cultivation of leaf—contd.*[Reference to Question 16 (iii).]—*contd.*

	Malda.	Murshidabad.	Birbhum.
4. Cost of manuring—			
(i) Price of own manure.	Rs. 148 10 0	Rs. 72 8 0	Rs. 9 12 0
(ii) Price of purchased manure.	Rs. 127 2 3	Rs. 16 0 0	Rs. 10 0 0
Spreading cost—			
(i) Family . . .	Rs. 13 5 6	Rs. 9 6 0	Rs. 1 5 0
(ii) Hired . . .	Rs. 111 0 3	Rs. 26 0 0	Rs. 22 1 6
5. Rent . . .	Rs. 99 10 0	Rs. 48 6 0	Rs. 38 15 0
6. Total cost of cultivation .	Rs. 1,309 15 6	Rs. 359 7 6	Rs. 157 11 6
7. Less price of roots and sticks sold.	Rs. 53 10 0	Rs. 14 10 0	Rs. 16 12 0
8. Net cost of cultivation .	Rs. 1,316 4 9	Rs. 344 13 6	Rs. 140 15 6
9. Yield of leaf in maunds .	5,381½ maunds.	1,264½ maunds.	638½ maunds.
10. Average yield per bigha .	63½ maunds.	76½ maunds.	57 maunds.
11. Average cost of cultivation per bigha.	Rs. 15 8 0	Rs. 20 14 0	Rs. 9 9 0
12. Average cost per maund of leaf.	Re. 0 3 10	Re. 0 4 4	Re. 0 2 9
13. Average cost per lb. .	·57 p.	·65 p.	·41 p.

These rates are arrived at on the calculation of actual hours of work of own labour and wages for those hours only. This is not feasible in practice. The wages too are calculated at very low rates.

Therefore about 50 per cent. over the figures obtained may be taken to represent the fair economic cost. This will be evident when the actual cost of cultivation in Government nurseries where all labour is paid for, is considered. The nursery figures are more than double and nearly three times as much as the figures obtained here. Therefore 8 pias per lb. may be taken to represent a fair economic cost per lb. of leaf.

ANNEXURE V.

[Reference to Question 22 (iii).]

Place of rearing.	Name of race.	No. of layings per kahan.	How many kahan per seer per kahan or seer of seed used.	How many kahan per 100 layings of eggs.	How many lbs. per 100 layings of eggs.	No. of cocoon in a lb.	Remarks.
Nurseries . .	Nistari .	7.5	53.36	..	25.2	736	
Selected Rearing houses.	Do. .	8.9	..	14	22	800	
General Rearing houses.	Do. .	..	48	10.5	16	784	
Nurseries . .	Chhotopolu.	7.32	..	..	28.3	660	
Selected Rearing houses.	Do. .	6.00	..	16.8	..	..
Nurseries . .	Barapolu	14.00	..	..	15.85	645	
Selected Rearing houses.	Do. .	4.00	..	24.1	..	..
General Rearing houses.	Do. .	..	33.6	12.6	..	..
Nurseries . .	Nistid .	6.6	65	..	46.7	456	
Selected Rearing houses.	Do. .	8.8	..	12.9	18	..	
General Rearing houses.	Do. .	6.9	40.4	14.5	38.5	486	
Nurseries . .	Nisimo .	5.56	..	..	58.5	417	
Selected Rearing houses.	Do. .	5.5	..	17.9	..	..
General Rearing houses.	Do. .	..	50	..	..	..
Nursery . .	Italian .	9.4	..	..	59.5	320	
Nursery . .	Cross (Barapolu & Italian).	6.8	..	..	50	320	

ANNEXURE VI.

Abstract census of rearing.

(Reference to Question 23.)

	Malda.	Murshidabad.	Birbhum.
1. Period of observation	November 1936 to Octo- 1937.	1937-38	May 1937 to March 1938.
2. No. of rearers under observation	20	8	7
3. Labour for rearing :—	Rs. a. p.	Rs. a. p.	Rs. a. p.
(i) Family	745 13 9	269 7 6	134 2 6
(ii) Hired	311 10 0	11 12 6	24 10 6
4. Quantity of leaf fed :—	Md. s. ch.	Md. s. ch.	Md. s. ch.
(i) Own leaf	4,614 11 0	1,195 37 8	681 9 6
(ii) Purchased	911 0 0	119 30 0	110 26 8
	Rs. a. p.	Rs. a. p.	Rs. a. p.
5. Price of own leaf calculated at cost of production.	1,125 15 5	337 14 11	140 15 6
6. Price of purchased leaf actually paid	461 1 3	97 0 0	82 8 0
7. Disinfection :—			
(i) Family labour	17 13 0	10 1 0	13 11 3
(ii) Hired labour	10 2 0	1 2 0	2 9 6
(iii) Disinfectant	17 10 3	...	23 2 7
8. Depreciation of appliances :—			
(i) Own appliances	109 13 0	34 14 9	29 0 0
(ii) Hired appliances	40 10 3	2 4 0	0 5 0
9. Miscellaneous expenses :—			
(i) Family	28 5 9	22 0 3	16 4 6
(ii) Hired	28 11 9	4 15 6	9 5 0
10. Price of seed cocoons less price of pierced cocoons.	138 13 3	33 13 6	27 10 0
11. Total cost of rearing in the year	3,036 7 8	825 5 11	503 4 4
	Md. s. ch.		
12. Total outturn of cocoons	204 13 8 or lbs. 16,347	1,838 kahan.	1,340 kahan or lbs. 2,144.
	Rs. a. p.	Rs. a. p.	Rs. a. p.
13. Average cost of cocoons per lb.	0 3 0	0 4 6	0 3 9
14. Quantity of leaves required for produc- ing one lb. cocoons.	27 lbs.	36 lbs.	29 lbs.

ANNEXURE VI—*contd.*(Reference to Question 23)—*contd.*

In this census the price of own leaves has been calculated at the figures actually obtained in the census of cultivation (Annexure IV) and the wages of family labour have been calculated at the low rates prevalent at the time and for the hours actually devoted to the work. Such adherence to actual hours and payment for those hours only are not feasible in practice. The price of leaves and wages are both low. In this connection it is necessary to state that during the last few years of depression the experience has been that when cocoon prices went down to about Rs. 16 to Rs. 18 per maund or about 3 annas 2 pies per lb., people gave up mulberry. When cocoons began to sell at Rs. 20 per maund or 4 annas per lb. things began to brighten no doubt but no one showed any enthusiasm to resume mulberry cultivation and rearing. Enthusiasm was evident only when cocoon prices ranged near about Rs. 25 or 5 annas per lb. A price of Rs. 30 per maund or 6 annas per lb. would be distinctly stimulative. It seems that 5 annas per lb. indicates the boundary line while for healthy growth of the industry 6 annas per lb. would be desirable. Prices went up for a while even beyond Rs. 30 this year. It is for these reasons that there were signs of increase in mulberry area and rearing during the year.



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ANNEXURE VII.

Abstract Census of Reeling.
(Reference to Question 29.)

	Malda.			Munshidabad.	Birbhum.	
	Tana.	Bharna.	Ghora.		Khamru.	Filature.
1. Period under observation	January 1937 to December 1937.			1937-38.	May 1937 to March 1938.	
2. Kind of cocoon	Nistari and chhotopolu.			Nistari, Nismo, Nistid, Bara-polu, Chhotopolu.	Nistari and chhotopolu.	
3. Price of cocoon	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
4. Price of cocoon per lb.	2,996 4 6	9,715 4 3	716 13 9	11,649 9 6	64 0 0	2,633 8 0
5. Price of cocoon per kahan	0 4 1	...	...	0 4 8	0 5 2	0 2 8
6. Cost of reeling	370 2 6	871 12 6	45 8 0	1,080 11 0	0 8 3	0 4 8
7. Cost of fuel	229 14 0	357 7 6	22 12 0	627 4 0	7 2 0	362 13 9
8. Cost of water	36 4 0	17 3 0	2 13 6	78 15 6	1 12 6	187 10 6
9. Miscellaneous expenses	93 13 0	174 11 6	10 12 0	386 6 6	0 9 0	34 15 6
10. Depreciation of appliances	12 9 3	12 1 6	1 2 10	254 5 0	0 7 6	18 9 0
11. Cost of supervision	Not incurred.			Not incurred.	0 9 0	Not available.
					Not incurred.	

ANNEXURE VII—contd.
Abstract Census of Reeling—contd.
 (Reference to Question 29)—*contd.*

	Malda.			Murshidabad.	Birbhum.	
	Tana.	Bharna.	Ghora.		Khamra.	Filature.
12. Total cost of reeling . . .	Rs. a. p. 3,738 15 3	Rs. a. p. 11,148 8 3	Rs. a. p. 799 14 1	Rs. a. p. 14,087 3 6	Rs. a. p. 74 8 0	Rs. a. p. 3,237 8 9
13. Quantity of raw silk produced.	Md. sr. ch. 7 34 0	Md. sr. ch. 31 37 5½	Md. sr. ch. 3 33 1½	Md. sr. ch. 32 33 6	Md. sr. ch. 0 7 12	Md. sr. ch. 9 28 8
14. Quantity of waste . . .	or 628 lbs. 8 4 4	or 2,556 lbs. 19 3 9	or 306 lbs. Nil.	..	or 15½ lbs.	or 777 lbs.
15. Waste represents what percentage of raw silk.	or 648 lbs. 103%	or 1,520 lbs. 59%	..	24 32 10	or 5½ lbs. 34%	or 640 lbs. 82%
16. Average cost of raw silk per lb. excluding prior of waste.	Rs. a. p. 5 11 0	Rs. a. p. 4 3 4	Rs. a. p. 2 9 9	Rs. a. p. 5 5 10	Rs. a. p. 4 12 6	Rs. a. p. 4 0 0
17. Rendita according to weight	18-35	14-2	9-5	15	12-8	18-4
18. Rendita according to kahan .		Not known.		18-5	8	11-5
19. Wages of reeler and turner per day—	As. p. 6 6	As. p. 4 6	As. p. 5 6	As. p. 3 0	As. p. 4 3	As. p. 3 6
(i) Reeler . . .	4 9	3 6	3 6	1 6	2 3	1 6
(ii) Turner . . .						
20. Outturn per charka in 10 hours.	9½ chs.	13 chs.	1 sr. 11 chs.	Not available.	7 chs.	5 chs.
21. Actual sale price of raw silk per lb.	Rs. a. p. 5 15 0	Rs. a. p. 4 7 9	Rs. a. p. 3 3 9	Rs. a. p. 5 3 6	Rs. a. p. 5 2 6	Rs. a. p. 6 13 0
22. Actual sale price of waste silk per lb.	0 4 2	0 3 9	..	0 4 10	0 2 6	0 3 0

N.B.—The above figures relate to *charkha*. No Mysore Domestic basin or filature is in existence.

ANNEXURE VIII.

Abstract Census taken for Weaving.

(Reference to Question 71.)

	Malda.		Birbhum.	
	Silk.	Matka.	Kora Than.	Kora Than Pagri.
1. Period of observation .	November 1937 to August 1938.		May 1937 to 31st March 1938.	
2. No. of weavers under observation.	2	1	1	1
3. Kind piece woven . . .	Shari.	Than.	Kora than	Kora than pagri.
4. Length and width woven .	10 yds. × 44" each.	12 yds. × 45" each.	10 yds. × 44" (24 pieces).	64 yds. × 35" (10 pieces).
5. Denier of raw silk used .	22/24	...	Not available.	
6. Quantity used for warp .	11 srs. 4 chs.	7 srs. 8 chs.	6 srs. 1 ch.	10 srs.
7. Quantity used for weft .	11 srs. 2 chs.	5 srs. 8 chs.	8 srs. 1 ch.	15 srs.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
8. Price of 6 and 7 . . .	231 5 6	90 0 0	155 3 6	251 4 0
9. Preparatory cost—				
(i) Family	18 11 9	4 13 6	14 4 0	1 11 6
(ii) Hired	32 7 9	2 9 9	3 5 0	7 8 0
10. Weaving cost—				
(i) Family	73 5 9	20 4 0	30 9 9	51 3 6
(ii) Hired	Nil	Nil	Nil	Nil
11. Depreciation of appliances.	6 4 0	3 2 0	2 0 0	2 0 0
12. Total cost of weaving .	362 2 9	129 13 3	205 6 3	313 11 0
13. Average cost of production per yd.	0 15 11	1 12 10	0 13 8	0 7 10
14. Average daily output per loom.	1 yd.	1 yd.	2½ yds.	2½ yds.
15. Average annual output per loom.	243 yds.	173 yds.	262 yds.	740 yds.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
16. Average price obtained per yd.	1 2 9	2 2 6	0 13 8	0 7 10
17. Percentage of raw material.	64	76	75	80
18. Percentage of labour cost for weaving.	21	19	16	16
19. Percentage of preparatory cost.	15	5	6	4

ANNEXURE VIII—contd.

Abstract Census taken for Weaving—contd.

(Reference to Question 71)—contd.

	Murshidabad.	
	Dhoti and Sari.	Broad Cloth.
1. Period of observation	1937-38.	
2. No. of weavers under observation	2	2
3. Kind of piece woven	Dhoti and Sari.	Broad Cloth.
4. Length and width woven	205 yds. × 45"	182 yds. × 40"
5. Denier of raw silk used	Not available.	
6. Quantity used for warp	5 srs. 2 chs.	3 srs. 12 chs.
7. Quantity used for weft	10 srs.	6 srs. 4 chs.
	Rs. a. p.	Rs. a. p.
8. Price of 6 and 7	199 6 6	121 15 6
9. Preparatory cost—		
(i) Family	24 10 0	14 6 0
(ii) Hired	12 12 0	7 3 0
10. Weaving cost—		
(i) Family	63 10 0	43 8 0
(ii) Hired	Nil.	Nil.
11. Depreciation of appliances	5 0 0	2 8 0
12. Total cost of weaving	305 6 6	189 8 6
13. Average cost of production per yard	1 7 10	1 3 11
14. Average daily output per loom	1 yd. 1' 1"	1 yd. 1' 9"
15. Average annual output per loom	102½ yds.	76 yds.
	Rs. a. p.	Rs. a. p.
16. Average price obtained per yard	1 6 1½	1 4
17. Percentage of raw material	66	65
18. Percentage of labour cost	22	23
19. Percentage of cost for twisting, dyeing and bleaching (i.e., preparatory cost)	12	12

- (4) Letter No. 4736, dated the 16th July, 1938, from the Secretary to the Government of Bengal, Agriculture and Industries Department, Calcutta.

With reference to paragraph 3 of your letter No. 510, dated the 14th May, 1938, and in continuation of this department letter No. 4657, dated the 12th July, 1938, I am directed to forward, herewith, the replies (with six spare copies) of this department to all the items of the Questionnaire issued by the Tariff Board regarding the handloom industry, except item No. 29, which will be covered by the reply to be issued from the Co-operative Credit and Rural Indebtedness Department of this Government.

2. As regards item 33 of the questionnaire relating to the sericultural industry, replies to which were forwarded with this department letter of the 12th July, 1938, referred to above, I am to add that, while the number of *Tassar* rearers is difficult to obtain with any degree of accuracy as the rearing is mostly done by aboriginal tribes and on wild forest trees, the number of *Tassar* weavers is 436. Reeling is done by weavers' families.

The sample of silk referred to in reply to question No. 56 on sericultural industry is being sent in a separate cover.

1. (a) (i) Number of weavers taking 1 for each loom:—

Mulberry.
2,966

Matka.
717

Tusser.
436

- (ii) & (iii) The information is not available.

- (b) There has been an increase in the number of mulberry silk looms.

2.

Kind of silk.	Source of supply.	Price per lb.	
		Minimum.	Maximum.
		Rs. A.	Rs. A.
Mulberry raw silk . . .	Bengal, Kashmir and foreign sources.	5 0	7 0
„ silk yarn . . .	Locally prepared . . .	9 0	10 0
„ spun silk . . .	Imported Italian and Japanese silk through local dealers.	4 8	..
Artificial silk . . .	Imported Japanese and English yarns through local dealers.	0 13	0 14
Gold thread . . .	From foreign sources . . .	9 0	10 0
Tusser . . .	Bengal . . .	5 0	..
Matka . . .	Do. . .	2 0	4 0
Kete . . .	Do. . .	2 4	..

3 & 4. Yarn of staple fibre is not known to be used.

5. (i)

Mulberry silk.	Matka.	Tusser.
(i) Twisting and winding—In certain centres twisting and winding are done by weavers' family members and in others by the professional twisters.	Same as mulberry silk.	Same as mulberry silk.
(ii) Boiling off is done by the weavers themselves, when necessary. In case of Kora goods bleaching of the woven pieces is done by separate agency.	Do.	Do.
(iii) Dyeing—Dyeing is done by the weavers when possible and by outside agency when necessary.	Do.	Do.
(iv) Doubling and preparing the warp are done by the weavers themselves.	Do.	Do.

6.

Mulberry Silk.		Matka.		Tusser.	
Warp.	Weft.	Warp.	Weft.	Warp.	Weft.
Bengal, Kashmir, Japanese and Chinese.	Bengal, Kashmir, Japanese and Chinese.	Matka or imported spun silk.	Matka or imported spun silk.	Tusser and spun silk.	Tusser.

N.B.—In mixed goods artificial silk is used as weft and spun silk as warp along with pure mulberry silk and passed off as pure silk goods.

7. The industry is still mostly in the hands of the merchants who finance it. Another system called "nagda" (cash) system has come into vogue in which the weaver has to purchase the raw material for cash and sell the product whenever he can. In the latter system the position of the weavers has become worse.

In neither system the weaver gets a fair deal.

Suggestions.—The only means of remedy lies in setting up organisations among the weavers which will arrange for regular supply of raw materials at reasonable prices, pay reasonable wages, and market the product. Arrangements for liquidating the debts of the weavers to the mahajans would have to be made before any organisation can be set up.

8. Following are the varieties of silk goods which are generally produced in weaving centres of Bengal:—

Mulberry silk.	Matka.	Tusser.
Dhuty and Saree . . .	Same as mulberry silk.	Same as mulberry silk.
Suiting or Shirting . .	Ditto	Ditto.
Handkerchief . . . .	...	...
Gown pieces . . . .	...	...
Turbans . . . . .	...	...
Brocades . . . . .	...	...
Chadars or Dopattas .	Ditto	Ditto.

In addition to the above certain centres have taken up the production of mulberry silk scarves, striped pyjama materials and suitings of keto and cotton.

Shirting, gown pieces, handkerchief, suffer keen competition with foreign goods. Lately, however, Japanese artificial silk sarees are also competing with indigenous products.

9. The total annual handloom production of different kinds of silk goods is approximately as follows:—

	Yds.
Mulberry silk	783,024
Matka	197,892
Keto	30,450
Tusser	121,800

10. Kind of article. No. of days taken by the weaver to produce.

Standard material.	Mulberry silk.	Matka.	Tusser.
	Days.	Days.	Days.
Saree and Dhuty	4 to 5	3 to 4	4 to 5
Suiting and Shirting . .	6 to 12	8 to 9	8
Gown pieces	6 to 12	...	...
Turbans	3 to 4	...	...
Chadars or Dopattas . . .	2 to 4	3	3 to 4

Special material—

Sarees with special ornamental works according to designs .	15 to 30	...	...
Brocades (Butidar)	15 to 30	...	...

N.B.—Time given above is exclusive of the time taken for preparatory process.

11. (i) For kind of silk used please refer to the reply to question 6.

(ii) Quantity of silk used for each class of article is as follows:—

Kind of articles.	Quantity of silk required.		
	Mulberry silk.	Matka.	Tusser.
	Tolas.	Tolas.	Tolas.
Saree and Dhuti (unbleached) . . .	20 to 30	40 to 50	25 to 30
Shirting „ . . .	45 to 75	80 to 100	45
Handkerchiefs „ . . .	25 to 28 per doz.	..	..
Gown pieces „ . . .	45 to 75	..	..
Turbans „ . . .	20 to 25	..	..
Chadars „ . . .	12 to 20	40 to 50	15 to 17
Suitings „ . . .	120	120 to 180	40



सत्यमेव जयते

13. The approximate value of the total annual production of silk goods is Rs. 12,25,000.

14. The spun silk is used for borders of tussar sarees as well as for warp or weft in Matka and for Mulberry silk articles.

To this extent the use of spun silk is restricted.

15. Please refer to the reply to question 2 above.

16. The merchants supply silk to weavers on credit. Raw material sufficient for one length of warp and weft to the value of about Rs. 30 to Rs. 100 is advanced to the weavers at a time rendering of account being made at the close of the Bengali year. The weaver has to repay the mahajan with the piece woven or in cash within the time usually taken to finish the work. In any case the weaver is perpetually indebted to the mahajan by this amount.

17. Imports agents sell the raw silk and artificial silk to the weavers through retailers or middle man mahajan.

18. The silk merchants agree in their opinion as regards superiority of Bengal silk in point of lustre and durability but inferiority as regards finish and convenience of manipulation to the imported silk. The use of foreign silk however is on the increase because of its cheapness and easy manipulation. The merchants who are the only buyers have still full control over the industry. By the use of foreign silk the merchants stand to profit both in the distribution of silk as well as in the sale of the product which is cheaper when made with foreign silk. The weavers of silk fabric are however of opinion that due to inferiority of foreign silk in point of lustre and durability their finished products are losing much of their old reputation which again is telling adversely on the silk handloom industry generally.

19. The raw silk is not sorted or graded either by the reeler or by any other agency.

The weavers will certainly take advantage of any arrangement for sorting or grading and it would result in increased consumption of Bengal silk.

20. There is a system whereby silk is supplied to the weavers by a middle man to whom finished article is returned for marketing. Conditions are more or less the same as were pointed out 5 years ago. In some cases middlemen supply silk or yarn to the weavers and take back the finished product on payment of nominal wages. In other cases they advance silk or yarn to the weavers at market rate which is treated as credit sale. When the finished product is returned for marketing the merchants take commission on the sale of fabrics produced therefrom at the time of final adjustment of accounts. If any loss is incurred it goes to the share of the weaver.

21. The position is the same as before and no efforts appear to have been made to remedy the defects.

22. The same conditions exist and no improvements have been effected yet.

23. The present position is this—artificial silk is being freely used in weft in several centres and 3 big power mills have been started to weave with artificial silk only.

24. The conditions found by the Tariff Board in 1933 still continue and the present rate of duty is not considered to be sufficient.

25. Statement showing the variations in the cost and sale price of articles and weavers wages is given in Annexure II.

26. The present rate of duty on silk fabrics has not proved beneficial to handloom weavers.

27. No factories for production of silk goods have come into existence.

28. Statement is supplied in Annexure I.

30. The goods are partly sold on the spot and partly at Calcutta and other important centres by the weavers. Freight is nominal.

31. The demand for natural silk seems to be decreasing.

32. The sources of supply are from Bengal, Kashmir, Japan, Canton and Italy.

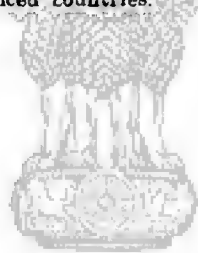
The quantity of raw silk consumed in different centres is as follows:—

	Lbs.
Mulberry silk	136,000
Spun silk	3,500
Matka	31,000
Tusser	21,800

33. There has been no appreciable turn over from imported to indigenous silk as a result of protection.

34. The grant of protection has not appreciably affected the handloom industry. Nothing definite has come to our notice.

It may be stated here that although not directly attributable to the protection of late several rayon manufacturing concerns have come into existence in the province. It is noticed that rayon products and products of mixed rayon and silk are being sold as silk goods. This is affecting the pure silk goods trade to a great extent. It seems advisable to take steps to prevent rayon or rayon mixtures from being passed on as real silk as has been done in other advanced countries.



सत्यमेव जयते

ANNEXURE I.

Statement showing the approximate cost of manufacture of typical articles of silk cloth.

Name of centre.	Kind of cloth woven.	Measurement.	Cost of raw materials.	Charges for					Rate of wages paid per day or per piece.
				Twisting and winding.	Dyeing.	Weaving.	Cost of labour.	Other charges.	
			Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Red bordered—									
Shibganj (Malda)	Sarees	150 yds. x 44"	124 7 6	13 14 0	1 0 0	38 4 9	10 6 9	2 2 3	As. 3.3 per day.
Do.	Dhuty	100 " x 44"	57 0 0	7 12 0	0 5 0	20 0 0	5 12 0	0 12 0	Re. 1 per piece.
Do.	Chadar	90 " x 52"	68 8 0	9 8 0	..	37 8 0	6 3 0	0 14 0	Re. 1.4 "
Do.	Shirting and Gown piece.	80 " x 36"	68 8 0	9 8 0	..	24 0 0	5 4 0	0 14 0	Rs. 3 " of 10 yds.
Vishnupur	Jacquard Saree	5½ " x 46"	7 0 0	..	..	..	..	..	Rs. 2.8 per piece.
Silk —									
Mirzapore	Saree	5 " x 45"	5 8 0	..	..	..	..	..	Do.
Do.	Dhuty	5 " x 45"	3 12 0	..	..	..	..	..	Re. 1.8 per piece.
Do.	Chadar	3 " x 52"	3 0 0	..	..	..	..	..	Do.
Do.	Gown piece, better quality.	10 " x 40"	12 0 0	..	..	..	..	..	Rs. 8 per piece.

Total expenses.

Do.	Do. inferior	Do.	9 0 0	..	..	..	..	..	Rs. 6
Panchgachia, Birbhum.	Dhuty and Saree	5 yds. x 45"	4 0 0	..	..	..	..	..	Rs. 1-8
Do.	Chadar	3 " x 50"	2 8 0	..	..	..	..	..	Rs. 1-4
Do.	Shirtings	9 " x 36"	9 6 0	..	..	..	..	..	Rs. 4 to Rs. 8 per piece.
Do.	Gold thread Saree	5 " x 45"	4 0 0	..	..	..	..	..	Rs. 7 to Rs. 12 per piece.
Do.	Handkerchief (12)	15 " x 15"	3 12 0	..	..	..	..	..	Rs. 2 per piece.
Baswa, Birbhum	Thun	9 " x 40"	5 8 0	..	..	..	..	..	Rs. 1-4
Tantipara and Kali-pur (Birbhum).	Saree	5 1/2 " x 46"	4 4 0	0 4 0	0 2 0	..	..	..	Rs. 1-4
Do.	Suitings	16 " x 25"	35 0 0	4 0 0	..	..	..	..	Rs. 6-8
Matka—									
Do.	Saree, medium quality.	5 " x 44"	3 8 0	..	0 4 0	2 0 0	0 5 0	0 4 0	Total production. Rs. 6-8.
Do.	Chadar, medium quality.	3 " x 54"	3 8 0	..	..	2 0 0	0 8 0	0 4 0	Rs. 6-4.
Do.	Suiting, medium quality.	12 " x 36"	14 0 0	..	..	4 0 0	1 0 0	0 8 0	Rs. 19-8.
Do.	Shirting, medium quality.	Do.	10 8 0	..	..	3 3 0	0 8 0	0 8 0	Rs. 14-8.

These charges include all preparat

ANNEXURE II.

Statement showing approximate annual variations in cost price, sale price and weaver's wages per day.

	Silk Saree.			Silk suitings.			Silk shirtings.		
	Cost price.	Sale price.	Wages per day.	Cost price.	Sale price.	Wages per day.	Cost price.	Sale price.	Wages per day.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
<i>Murshidabad District.</i>									
1934 . . .	9 0 0 to 11 0 0	12 0 0 to 16 0 0	0 6 0	22 0 0 to 25 0 0	30 0 0 to 34 0 0	0 6 0	14 0 0 to 16 0 0	18 0 0 to 24 0 0	0 6 0
1935 . . .	9 0 0 to 11 0 0	11 0 0 to 15 0 0	0 5 0	22 0 0 to 25 0 0	30 0 0 to 32 0 0	0 5 0	14 0 0 to 16 0 0	18 0 0 to 24 0 0	0 5 0
1936 . . .	9 0 0 to 11 0 0	10 0 0 to 14 0 0	0 4 6	22 0 0 to 25 0 0	28 0 0 to 30 0 0	0 5 0	14 0 0 to 16 0 0	18 0 0 to 22 0 0	0 4 6
1937 . . .	10 0 0 to 11 0 0	11 0 0 to 15 0 0	0 5 0	22 0 0 to 25 0 0	28 0 0 to 30 0 0	0 5 0	14 0 0 to 16 0 0	18 0 0 to 22 0 0	0 5 0
1938 . . .	10 0 0 to 12 0 0	12 0 0 to 16 0 0	0 5 6	24 0 0 to 26 0 0	30 0 0 to 32 0 0	0 5 6	15 0 0 to 17 0 0	19 0 0 to 25 0 0	0 5 0
<i>Malda District.</i>									
1934 . . .	8 8 0	10 0 0	2 4 0 per piece.	..	..	..	..	..	..
1938 . . .	5 0 0	5 14 0	1 8 0 "	..	..	..	..	..	..

ANNEXURE II—contd.

Statement showing approximate annual variations in cost price, sale price and weaver's wages per day—contd.

	Matka Saree.			Matka Chaddar.			Matka shirting.		
	Cost price.	Sale price.	Wages per day.	Cost price.	Sale price.	Wages per day.	Cost price.	Sale price.	Wages per day.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Murshidabad District.									
1934 . . .	4 0 0 to 6 8 0	5 0 0 to 10 0 0	0 5 0	5 0 0 to 6 0 0	7 0 0 to 10 0 0	0 5 0	12 0 0 to 15 0 0	15 0 0 to 18 0 0	0 5 0
1935 . . .	4 0 0 to 6 8 0	5 0 0 to 10 0 0	0 5 0	5 0 0 to 6 0 0	7 0 0 to 10 0 0	0 5 0	12 0 0 to 15 0 0	15 0 0 to 18 0 0	0 5 0
1936 . . .	4 0 0 to 6 8 0	5 0 0 to 9 0 0	0 4 6	5 0 0 to 6 0 0	7 0 0 to 9 0 0	0 4 6	12 0 0 to 15 0 0	15 0 0 to 17 0 0	0 4 6
1937 . . .	4 0 0 to 6 8 0	5 0 0 to 9 0 0	0 4 6	5 0 0 to 6 0 0	7 0 0 to 9 0 0	0 4 6	12 0 0 to 15 0 0	15 0 0 to 17 0 0	0 4 6
1938 . . .	4 0 0 to 7 0 0	6 0 0 to 10 0 0	0 5 0	5 0 0 to 7 0 0	7 0 0 to 10 0 0	0 5 0	12 0 0 to 15 0 0	15 0 0 to 18 0 0	0 5 0

Cost of production of various kinds of handwoven goods supplied by the Government of Bengal.

Name of place.	Class of cloth (Typical).	Dimension.	Material.	Raw material.	Twisting and winding.	Dyeing.	Weaving.	Labour.	Other charges.	Total.
Shibganj (Malda).	Red bordered Sari.	44" × 180 yds.	Silk-bleached and twisted.	Rs. A. P. 124 7 6	Rs. A. P. 13 14 0	Rs. A. P. 1 0 0	Rs. A. P. 38 4 9	Rs. A. P. 10 6 9	Rs. A. P. 2 2 3	Rs. A. P. 190 3 3
Do.	Dhuty .	44" × 100 "	Do.	57 0 0	7 12 0	0 5 0	20 0 0	5 12 0	0 12 0	91 9 0
Do.	Chadar .	52" × 90 "	Do.	68 8 0	9 8 0	..	37 8 0	6 3 0	0 14 0	122 9 0
Do.	Shirting and gown piece.	36" × 90 "	Do.	68 8 0	9 8 0	..	24 0 0	5 4 0	0 14 0	108 2 0
Vishnupur	Jacquard saree	46" × 5½ "	Do.	5 8 0	0 6 0	0 0 6	1 14 0	0 2 6	0 1 0	8 0 0
Do.	Do.	46" × 5½ "	Do.	5 8 0	1 1 0	0 4 0	2 12 0	1 4 0	0 11 0	10 8 0
Mirzapur	Silk saree	45" × 5 "	Do.	5 8 0	0 6 0	0 2 0	1 12 0	0 2 6	0 1 6	8 0 0
Do.	Dhuty .	45" × 5 "	Do.	3 12 0	0 5 0	..	1 0 0	0 2 0	0 1 0	5 4 0
Do.	Chadar .	52" × 3 "	Do.	3 0 0	0 5 0	..	1 0 0	0 2 0	0 1 0	4 8 0
Do.	Gown piece better quality.	40" × 10 "	Do.	12 0 0	1 12 0	..	5 8 0	0 8 0	0 4 0	20 0 0
Panchga chia (Birbhum).	Gown piece inferior quality.	40" × 10 "	Do.	9 0 0	1 4 0	..	4 0 0	0 8 0	0 4 0	15 0 0
	Dhuty and Saree	45" × 5 "	Do.	4 0 0	0 5 0	..	1 0 0	0 2 0	1 0 0	5 8 0

Chadar . .	50" × 3	Do.	2 8 0	0 5 0	..	0 12 0	0 2 0	0 1 0	3 12 0
Shirtings . .	36" × 9	Do.	9 6 0	1 6 0	..	2 4 0	0 2 0	0 4 0	13 6 0
Gold thread Saree	45" × 5	Do.	4 0 0	0 13 0	..	3 12 0	1 0 0	1 7 0	11 0 0
Handkerchief (12)	15" × 15	Do.	3 12 0	0 9 0	..	0 12 0	0 2 0	0 1 0	5 4 0
Baswa (Bir- bhumi).	Than . .	40" × 9	5 8 0	0 2 0	..	0 14 0	0 2 0	0 2 0	6 12 0
		Kora-unbleached and untwisted silk.							
Saree with blouse piece each.	45" × 6½	Do.	45 0 0	0 12 6	..	5 8 0	1 1 0	..	52 5 6
Tantipara and Kahpur (Bir- bhumi).	Saree—plain . .	46" × 5½	4 4 0	0 4 0	0 1 0	0 12 0	0 2 0	0 1 0	5 8 0
	Suitings . .	28" × 16	36 0 0	4 0 0	..	5 0 0	0 12 0	0 12 0	46 8 0
	Matka sari—medium quality.	44" × 5	3 8 0	..	0 4 0	2 0 0	0 8 0	0 4 0	6 8 0
	Matka chadar—medium quality.	54" × 3	3 8 0	..	..	2 0 0	0 8 0	0 4 0	6 4 0
	Matka suitings—medium quality.	36" × 12	14 0 0	..	..	4 0 0	1 0 0	0 8 0	19 8 0
	Matka shirting—medium quality.	36" × 12	10 8 0	..	..	3 0 0	0 8 0	0 8 0	14 8 0

Cost of production of various kinds of handwoven goods supplied by the Government of Bengal—contd.

Name of place.	Class of cloth (Typical).	Dimension.	Material.	Sale price.	Production per day.	Weaver's earning per day or piece.	Remarks.
Shibganj (Malda)	Red bordered Sari	44" × 190 yds.	Silk-bleached & twisted.	Rs. A. P. Not given.	Not given.	Rs. A. P. 0 3 3 per day.	....
Do.	Dhuty	44" × 100 "	Do.	Do.	Do.	1 0 0 per piece.	....
Do.	Chadar	52" × 90 "	Do.	Do.	Do.	1 4 0 per piece.	....
Do.	Shirting and gown piece.	36" × 80 "	Do.	Do.	Do.	3 0 0 per piece, of 10 yds. than.	....
Vishnupur	Jacquard saree	40" × 5½	Do.	8 8 0	..	*2 8 0 for ordinary border.	*Per piece, including all preparatory expenses.
Do.	Do.	46" × 5½	Do.	12 0 0	..	*3 0 0 for designed border.	Ditto.
Mirzapore	Silk Saree	45" × 5 "	Do.	8 8 0	..	*2 8 0	Ditto.
Do.	Dhuty	45" × 5 "	Do.	5 8 0	..	*1 8 0	Ditto.
Do.	Chadar	52" × 3 "	Do.	4 12 0	..	*1 8 0	Ditto.
Do.	Gown piece, better quality.	40" × 10 "	Do.	22 0 0	..	*8 0 0	Ditto.
	Gown piece, inferior quality.	40" × 10 "	Do.	16 0 0	..	*6 0 0	Ditto.

Panchgachia (Birbhum).	Dhuty and Saree	45" x 5	"	Do.	.	6 0 0	..	₹1 8 0	Ditto.
	Chadar	50" x 3	"	Do.	.	4 0 0	..	₹1 4 0	Ditto.
	Shirtings	38" x 9	"	Do.	.	15 0 0	..	₹4 0 0	Ditto.
	Gold thread Saree	45" x 5	"	Do.	.	12 8 0	..	₹7 0 0	Ditto.
	Handkerchief (12)	15" x 15	"	Do.	.	6 0 0	..	₹1 8 0	Ditto.
Baswa (Birbhum)	Than	40" x 9	"	Kora-unbleached and untwisted silk.	.	7 0 0	..	₹1 4 0	Ditto.
	Saree with blouse piece each.	45" x 6½	"	Do.	.	65 0 0	..	..	....
Tantipara and Kali-pur (Birbhum).	Saree—plain	46" x 5½	"	Tassar silk	.	6 0 0	..	₹1 4 0	*Per piece, including all preparatory expences.
	Suitings	28" x 16	"	Do.	.	50 0 0	..	₹10 8 0	Ditto.
	Matka sari—medium quality.	44" x 5	"	Matka	.	7 8 0	..	₹3 0 0	Ditto.
	Matka chadar—medium quality.	54" x 3	"	Do.	.	7 0 0	..	₹2 12 0	Ditto.
	Matka suiting—medium quality.	36" x 12	"	Do.	.	22 0 0	..	₹5 8 0	Ditto.
	Matka shirting—medium quality.	36" x 12	"	Do.	.	16 0 0	..	₹4 0 0	Ditto.

- (5) *Letter No. 1741, dated the 1st September, 1938, from the Joint Secretary to the Government of Bengal, Co-operative Credit and Rural Indebtedness Department, Co-operative Branch, Calcutta.*

I am directed to forward herewith the replies (with six spare copies each) received from (1) the Secretary, Maldah Silk Union and (2) the Inspector of Co-operative Societies, Maldah, to the questionnaire issued by the Tariff Board regarding Sericultural Enquiry.

QUESTIONNAIRE FOR LOCAL GOVERNMENT.

Replies to the questionnaire point by point by P. K. Mitter, the Industrial Inspector of Co-operative Societies, as desired by the Registrar of Co-operative Societies, Bengal in his No. 11199-11207, dated the 13th July, 1938.

1. (a) Total number of silk handloom weavers at Malda are as follows:—

Silk weavers 141 One weaver—1 loom on average, of these 10 to 15 looms do not work regularly.

Matka weavers (hand-spun silk) 90 One weaver—1 loom, of these 20 to 30 looms do not work regularly.

- (i) All looms are engaged in weaving silk goods.
- (ii) There is no mixed weaving of cotton and silk.
- (iii) None of the above looms is engaged in cotton weaving.

- (b) There is no appreciable increase in the total since 1st April, 1934.

2. Sources of supply of raw materials.

- (a) Indigenous silk—

- (i) direct from reelers,
- (ii) through middlemen mahajans.

(b) Imported silk.—Through local middlemen Mahajans and also those of Mirzapur (in Murshidabad) and Calcutta.

- (c) Foreign spun silk and artificial silk are not used here in handlooms.

- (d) Gold thread is also used in handloom weaving.

Manufactures.—(1) Raw silk is manufactured in Bengal (now mainly in the district of Malda and Murshidabad and also to a little extent in Bankura and Birbhum.

Murshidabad silk is better than Malda silk.

Raw silk is also produced in other provinces such as Mysore, Kashmir, Punjab, etc.

(b) Matka (hand spun silk from waste cocoons) is also produced in Bengal.

- (c) Spun silk and artificial silk is imported.

(d) Gold thread is produced in India, but generally is imported. It comes to the weaving centres from Surat, Benares through Calcutta market.

Price paid per lb. (average)—

- (1) Indigenous raw silk (unbleached)—Rs. 5 to Rs. 6-8.
- (2) Japanese raw silk—Rs. 5 to Rs. 6.
- (3) Canton (Chinese) silk—Rs. 5 to Rs. 5-8.
- (4) Matka—Rs. 2 to Rs. 4.
- (5) Gold thread—Rs. 14 to Rs. 24.

Loss is more in degumming and winding the indigenous silk to make it fit for looms and so the cost is more in the weaver's hands.

3. Yarn made from staple fibre is not used by the local weavers in their looms.

4. There is no tendency for staple fibre yarn to dust silk.

5. Operations performed.

(a) Twisting—by separate class of people (local).

(b) Winding—both by the weavers themselves and by outside agencies (local).

(c) Dyeing—by the weavers themselves in some cases but generally by outside agencies from Khagra (Murshidabad).

(d) Doubling and preparing the warp—by the weavers themselves.

6. Kind of silks used for warp and weft:—

Warp.		Weft.
Ground.	Bordly.	Indigenous.
Indigenous	Japanese	or
Japanese	Indigenous	Chinese.
or	or	
Indigenous	Japanese	
Chinese	Indigenous	

Warp—Indigenous—generally 16-20 denier.

Weft—generally 20-22 denier.

As regards matka (handspun) yarn, the same yarns are used both in warp and weft.

Indigenous silk is produced both in steam filature (in Murshidabad) and in country reel (in Malda) and is used amongst the local weavers. These yarns are not re-reeled and take much time in preparing warp and weft.

Imported silk—are always available, now in the market. This yarn is ready for the looms.

7. As regards the organisation of the industry, the present position is almost the same as was found by the last Tariff Board, and practically there is no difference between the past and the present position. The weavers do not get fair dealings under this system.

Suggestions.—Organisation of Association amongst the silk weavers under direct Government supervision is necessary with the object of (a) financing them in cash and advancing raw materials on security. (b) Getting back the finished goods and finding out market for these finished products. (c) Training them in modern weaving and dyeing.

8. Following varieties of silk goods are generally produced locally now:—

Silk goods.	Matka goods.
1. Dhuties.	1. Dhuties.
2. Sarees.	2. Sarees.
3. Chaddars.	3. Chaddars.
4. Shirtings.	4. Shirtings.
5. Gownpieces.	5. Suitings.
6. Handkerchiefs.	

These articles are produced purely on handloom without much ornamental work in them.

Jacquard machine is not in use at all in the district of Malda. These machines are extensively used by the Bishnupur (Bankura) weavers. Now-a-days the ornamental border work of sarees is done through jacquard machines, and the demand of these goods is increasing daily.

There is no change in weaving since the last Tariff Board.

Note.—In Bankura and Birbhum there is another kind of weaving, viz.—(a) Tasser weaving. (b) Kete weaving.

Tasser yarn is produced from Tasser cocoons. Kete is the hand spun yarn of waste Tassar cocoons (as Matka is of waste silk cocoons).

Local goods such as sarees, dhuties and chaddars (these are principle manufactures of handloom weavers in Bengal) do not suffer competition from imported goods because handmade dhuties, sarees, chaddars are still preferred by the public for their durability.

Shirtings and gown pieces are subject to competition.

9. Total handloom production of goods (average):—

Kind of cloth.	No. of pieces.		In yards.	
	Silk.	Matka.	Silk.	Matka.
Sarees	7,400	3,160	38,000	15,800
Dhuties	686	775	3,430	3,875
Chaddar	367	800	1,161	2,400
Shirtings	73	...	800	...
Suitings . . . .	...	200	...	2,400
Handkerchiefs	125 doz.	...	...	...

10. Day taken by a weaver to produce the finished article in each category—

Silk.		Matka.
1. Sarco—		
5 yds. × 44"	} 4 to 5 days	3 to 4 days.
5½ „ × 45"		
2. Dhuty—		
5 yds. × 44"	4 to 5 days	3 to 4 days.
3. Chandar—		
2½ yds. to 3½ yds. × 44" to 54"	3 to 4 days	3 days.
4. Shirtings or gown pieces—		
10 yds. × 36" to 40"	} 10 to 12 days	—
12 yds. × 36" to 45"		
5. Suitings—		
12 yds. × 36" to 44" . . . .	..	8 to 9 days.

11. Kind of silk used—

- 1(a) Indigenous.
- (b) Japanese.
- (c) Chinese.

2. Matka (hand spun) Quantity of silk used—

Silk.	Matka.
Sarce—2.5 to 35 tolas.	40 to 50 tolas.
Dhuty—20 to 25 tolas.	25 to 40 tolas.
Chaddar—12 to 20 tolas.	40 to 50 tolas.
Shirtings or gownpieces—45 to 75 tolas.	..
Suitings. ..	140 to 150 tolas.
Handkerchiefs—25 to 28 tolas.	..

12. Length and breadth and approximate price of the finished goods:—

Kind of cloths.	Silk goods.			Matka goods.		
	Length.	Breadth.	Price.	Length.	Breadth.	Price.
			Rs. A.			Rs. A.
Saroo	5 yds. 5½ yds.	44" 45"	5 14	5 yds.	44"	5 12
Dhuty	5 yds.	44"	5 8	5 yds.	44"	5 0
Chaddar	2½ yds. 3½ yds.	} 44"—54"	4 8	3 yds.	54"	4 2
Shirtings	10 yds.			..	..	..
Gown pieces	12 yds.	36" to 45"	} 15 4			
Handkerchiefs	22"	22"		per doz.		
Suitings.				12 yds.	36"—44"	12 0

13. Approximate value of total annual production of goods:—

(a) Silk goods—From Rs. 50,000 to Rs. 55,000.

(b) Matka goods—From Rs. 28,000 to Rs. 30,000.

14. *Spun silk (Mill-made).*—No use here amongst the local weavers. But these are used in some places in the border of the Matka and Tasser, silk cloths, and also used in the border of mill-made dhoties and sarees. These are also used in suitings and similar kind of cloths.

15. *Silk supply.*—The weavers get their supply of silk (i) direct from the reelers (in a few cases only), (ii) from the middlemen and mahajans (in the majority of cases).

Matka yarns.—Entire supply is through local dealers.

16. The local merchants supply silk yarn to weavers on credit generally at Rs. 100 per loom pending adjustment at the close of Bengali year.

17. The silk merchants as importers agents, sell the raw silk to the weavers' directly and also through the retailers—the middlemen mahajans.

18. Indian silk though better in durability is still inferior to the foreign silk which is machine reeled, then re-reeled and graded to the particular qualities demanded in the market and the silk is ready for the looms.

Indian silk so far Bengal is concerned, is hand reeled silk of which there are 2 varieties are prevalent in Malda in which every operation is done with hand and the boiling of water is also done by use of wood and the reel being of small size, the skin (hawk) of the silk is small.

The other kind is called the filature silk of Murshidabad. Here the boiling of water is done with steam. This is more improved reeling in Bengal. The skin (hawk) of yarn is bigger than Malda skin and the quality of silk is also better than Malda. This silk is used in higher weaving. The cost of this raw silk as well as the finished goods is more.

But in both the cases, the silk is not re-reeled and graded as is done in the cases of foreign silk, and is not therefore, ready for the weavers' looms, and there is loss in the weavers' hand before it is made ready for the looms.

Price of Bengal silk is a little higher than foreign silk. Then there is more loss in the weavers hands to make it fit for looms. For these various reasons, the production of Bengal indigenous silk cost higher and therefore does not meet the demand of the general public who invariably prefer cheap goods in these hard days.

The merchants are business men and profit making is their main aim. They naturally, therefore, do not like goods of purely indigenous silk. They give preference to weaving with imported silk in whole, or mixtures with indigenous silk to compete in the market, as by this, they can sell more and get better profit. It is mainly for this reason that foreign silk is being gradually introduced amongst the village weavers who are compelled to use the imported silk as their only purchasers are the mahajans (merchants) who take back the finished goods in exchange of imported silk and cash.

19. The silk yarn is neither ported nor graded by the reelers and there is no regular separate agencies for this work. Only the dealers (the merchants) do this work only after a rough outward test.

If sorting or grading were introduced and a silk conditioning house was established as is done in Japan, Italy and France, it would result in the better production and increased consumption of indigenous silk.

20. Yes, there is the system in existence whereby silk is supplied to weavers by middlemen to whom the finished articles are returned for marketing. This is done on the following conditions:—

(a) In some cases, middlemen mahajans supply yarns to weavers for weaving particular kind of cloths and get back the finished articles on payment of very nominal wages.

(b) In other cases the mahajans advance yarns to the weavers for weaving cloths according to their requirements on credit (credit sale). Value of this yarn is debited to the accounts of the weavers according to the current market rate. When the goods are made over to the mahajans, he makes a payment almost equivalent to the weavers' remuneration for the piece. The Mahajans also take commission on sale of the goods produced from the supplied yarns, at the time of closing the accounts at 66½ per cent. generally. In case of any loss incurred, the loss goes to the woavers accounts.

21. As regards the lack of enterprise and method in the marketing indigenous raw silk in silk producing countries, want of efforts to advertise the merits and varieties of Indian silk and the variation in the unit of weight, etc., the position is the same as was found by the last Tariff Board. No efforts seem to have been made to remedy the defects.

22. As regards the fact that the Indian silk is more difficult to mind than the foreign silk and the loss in degumming is greater in the case of the Indian silk than in the case of Chinese silk, the position is same as was found by the last Tariff Boards.

No improvement has since been made in the method of re-reeling.

23. Local weavers (Malda) do not use artificial silk at all. But in general, the position of artificial silk is same as before.

24. As regards the fact that spun silk is a serious competition to Indian raw silk, because of the advantage that it does not need re-reeling or twisting and therefore less expensive and without any loss in degumming, the position is same as was found by the last Tariff Board.

The present rate of duty may not be considered sufficient to protect the Indian product.

25. Statement showing the variations in cost price, sale prices, and weavers' wages since the 1st April, 1937 (average).

	1933-34.			1937-38.		
	Cost price.	Sale price.	Weavers' wages.	Cost price.	Sale price.	Weavers' wages.
	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.
Saree . . .	8 8	10 0	2 4	5 0	5 14	1 0 to 1 8
Dhuty . . .	7 0	8 8	1 12	4 10	5 8	1 0
Chadder. . .	6 0	7 8	2 0	4 0	4 8	1 4
Shirting or gown pieces.	16 0	19 0	3 12	13 8	15 4	3 0
Handkerchiefs .	6 0	8 4	1 12	4 13	5 12	1 0

Reliable figures for annual variations are not available. The weavers do not keep any pucca records of their annual work. But judging from the figures of 1934 and 1938, average fall in the prices after 5 years is as follows:—

Fall in cost price—Rs. 2-6 in 5 years.

Fall in sale price—Rs. 3-4 in 5 years.

Fall in weavers' wages—As. 12 in 5 years.

Therefore the average fall per year is—

Cost price—As. 7-6 per year.

Sale price—As. 10-3 per year.

Weavers' wages—As. 2-9 per year.

My opinion on costing is that—

(a) Now-a-days only cheap goods are wanted in the market, so less quantity of yarn is used to produce cheaper quality of cloths of same size.

(b) Cheap quality of imported yarn is used which result less expense in weaving than in the case of indigenous silk.

(c) Weavers' wages now are less than 5 years before.

(d) About 5 years back there was very little use of imported silk so the goods produced were of more costly indigenous silk, with higher expenses to make it fit for the looms.

(e) Consequently the price of goods was also higher.

(f) Now-a-days, exclusively or major portion of handloom is handloom weaving is done with imported silk with less expense in weaving *plus* less weavers' wages—the result is the value of goods is also less.

And the point is that formerly weaving of Saree and Dhuty (5 yds. x 44" each piece) took an average 6 days to finish. But now the same piece of cloth takes an average 5 days or even less to make it fit for the market.

Hence also labour cost in weaving is less.

26. The present duties on imported silk fabrics, artificial silk goods and mixtures, etc., have not proved beneficial to handloom weavers.

27. No factories for the production of silk goods come into existence recently of Malda or at any silk district in Bengal.

28. The approximate cost of manufacture of typical articles of pure silk cloths is shown in the following statement :—
Approximate cost of manufacture of typical articles of silk cloths :—

Kind of cloths.	Length of warp.	Raw materials.	Twisting.	Winding.	Dyeing.	Weaving charges labour.	Bleaching.	Warping and Hobbm winding.	Cost per yard.	Rate of wages paid per day or per piece.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Saree . . .	180 yds. × 44"	124 7 6	7 15 0	5 15 0	1 0 0	38 4 9	2 2 3	10 6 9	1 0 3	0 3 3 per day.
Dhuty . . .	160 yds. × 44"	57 0 0	3 0 0	4 12 0	0 5 0	20 0 0	1 0 0	5 8 0	0 14 6	1 0 0 per piece.
Chaddar . . .	90 yds. × 54"	68 8 0	3 12 0	5 12 0	..	37 8 0	0 14 0	6 3 0	1 5 3	1 4 0 per piece.
Shirting and Gownpieces	80 yds. × 36" to 40"	68 8 0	3 12 0	5 12 0	..	24 0 0	0 14 0	5 4 0	1 5 6	3 0 0 per piece of 10 yds. than.

29. Co-operative Societies assist the weavers in the following way:—

- (1) They assist the weavers to obtain their supplies of raw material and requisities.
- (2) These societies also assist to promote the silk industry by organising the members of various classes of the silk industry, such as—cocoon rearers, silk-reelers and silk weavers to regulate the relations between the different classes of these societies and to co-ordinate their activities.
- (3) These societies issue loans to the members on a very moderate rate of interest (much less than that issued by Mahajans) for the purchase of cocoon rearing, silk-reeling, purchasing machineries, raw materials, etc.
- (4) They help in the supply of raw materials, disposal of finished goods of the members at profitable rates, etc.
- (5) Help in the training up of the members in the technical matters, by holding demonstrations, imparting knowledge in higher weaving, dyeing, etc.
- (6) Help to find out market and carry on propaganda work for those productions.

At Malda there is a Silk Union with 34 affiliated cocoon rearers' societies.

There is a Silk Association at Jangipur (Murshidabad). There are also many silk weavers' societies in Murshidabad and Birbhum.

There is a Central Industrial Society at Calcutta for helping the village organisations in supply of raw materials and disposal of their finished goods and for rendering help in other necessary ways.

30. The manufactured articles are sold locally to a little extent. But major portion is sent by the middlemen Mahajans to Calcutta and Mirzapur (Murshidabad) and other districts in Bengal, Assam, Bombay, Madras, the United Provinces, etc.

The merchants take the cloths from the weavers and railway freights, etc., are paid by the Mahajans.

The weavers have nominal or no charges to meet in this connection.

31. Demand for natural silk (unported) may be said to be increasing against the artificial silk.

In Bengal weavers use natural silk in their looms and no artificial silk is independently used by them.

32. Present sources of supply of raw silk are as follows:—

- (1) Imported silk—From Calcutta to Mirzapur, through merchants.
- (2) Indigenous silk through reelers of Malda and Murshidabad to a little extent. But a major portion comes through middlemen Mahajans.
- (3) Matka—through reelers.

So far as Malda is concerned the amount of raw silk consumed is as follows (average):—

Raw silk—From 6,000 to 6,500 lbs., of value from Rs. 36,000 to Rs. 39,000.

Matka—about 5,500 lbs., of value Rs. 16,500

33. There has been no appreciable turnover from imported to indigenous silk as a result of protection.

34. I do not find any other matters affecting the silk handloom industry by the grant of protection to Sericulture.

OFFICE OF THE BENGAL CO-OPERATIVE SILK UNION, LTD., MALDA.

Replies to the questionnaire on the Handloom Industry (Silk).

1. (a) (i) Total number of silk looms—141. Total number of Matka looms—90.

(a) (i) All.

(ii) & (iii) Nil.

(b) No.

2. *Raw silk*.—Weavers who are better off get their supply of indigenous raw silk from reellers direct and imported raw silk from middlemen dealers of Mirzapur (Murshidabad) and Calcutta.

Poorer weavers who are majority in number get their supply of both indigenous and imported raw silk through middlemen Mahajans, e.g., Hemlal Pajha, Gobinda Bhair, Jadu Nath Das, Bipin Dhair who are practically, the better off weavers of whom mention has been made above.

Gold thread.—Manufactured as well as imported supply of gold thread is generally received from Calcutta.

Matka.—Supply of Matka is generally received from local dealers—

	Price paid per lb.	
	Rs. a.	Rs. a.
(i) Indigenous raw silk	5 0 to 6 8	
(ii) Japanese raw silk	5 8 to 6 0	
(iii) Canton raw silk	5 0 to 5 8	
(iv) Matka	2 0 to 4 0	
(v) Gold thread	14 0 to 24 0	

In case of indigenous silk loss is more in degumming and winding which makes the cost higher.

3. No.

4. Does not arise.

5. (i) Twisting by separate class of people (local).

Winding both by themselves and outside agencies (local).

(ii) Themselves.

(iii) Themselves and by outside agencies (Khagra, Murshidabad and Malda Town).

(iv) Doubling by themselves.

Preparing the warp by separate local agencies.

6. Kind of silk used—

Warp.		Weft.
Boarder.	Ground.	
Japanese.	Indigenous.	Indigenous or Canton.
Indigenous.	Japanese or Indigenous.	
Japanese or Indigenous.	Canton.	

In case of Matka handspun yarns are used both for warp and weft.

Indigenous silk produced in steam filature, country ghai of fine qualities are in use in this area.

7. Present position is the same as was found by the last Tariff Board.

I do not think that the weavers get fair deal under this system.

Suggestions.—The remedy lies in organising Associations amongst them under Government supervision, function of which should be—

- (i) Financing them in cash and advancing raw materials.
- (ii) Training them in modern methods of weaving and other preparatory methods with suitable machines.
- (iii) Finding out market for their finished goods.

8. Following varieties of silk goods are generally produced:—

Silk.	Matka.
(a) Dhuties.	(a) Dhuties.
(b) Sarees.	(b) Sarees.
(c) Handkerchiefs	(c) Chaddars.
(d) Chaddars.	(d) Shirtings and suitings.
(e) Shirtings.	
(f) Gown pieces.	

No change since 1934.

Items (e) and (f) suffered competition with those of imported piecegoods.

9. Kind of cloths.	No. of pieces.		Quantity in yard.	
	Silk.	Matka.	Silk.	Matka.
Saree	7,400	3,160	38,000	15,800
Dhuti	686	775	3,430	3,875
Chaddar	387	800	1,161	2,400
Shirtings and Gown pieces.	73	...	800	...
Shirtings and suitings . . . . .	...	200	...	2,400
Handkerchiefs	125 Doz.	...	...	...

10.	Silk.	Matka.
Saree	4 to 5 days	3 to 4 days.
Chaddar	3 to 4 days	3 days.
Dhuti	4 days	3 to 4 days.
Shirtings or gown pieces	10 to 12 days	..
Shirtings or Suitings . . . . .	..	8 to 9 days.

11. *Kind of silk.*—Refer reply to question 6.

	Quantity of silk used.	Quantity of Matka used.
Saree	25 to 30 tolas (unbleached).	40 to 50 tolas.
Dhuti	20 to 25 tolas	35 to 40 tolas.
Chaddar	12 to 20 tolas	40 to 50 tolas.
Shirtings or Gown pieces	45 to 75 tolas	..
Shirtings or Suitings . . . . .	..	140 to 180 tolas.
Handkerchiefs	25 to 28 tolas (per doz.)	..

Specifications.	Silk.			Matka.		
	Length.	Breadth.	Price.	Length.	Breadth.	Price per piece.
			Rs. A.			Rs. A.
Saree . . .	5 yds. 5½ yds.	44" 46"	8 0 in average.	5 yds.	44"	8 8
Dhuti . . .	5 yds.	44"	7 0	5 yds.	44"	7 0
Chaddar . .	2½ yds. to 3½ yds.	44"—54"	6 0	3 yds.	54"	8 0
Shirtings and Gown pieces.	10 yds. 12 yds.	36"—40" 36"—45"	16 0	..	..	..
Handkerchiefs .	22"	22"	6 0 per doz.	..	..	..
Shirtings and Suitsings.	..	..	..	12 yds. 12 yds.	36" 45"	20 0 to 30 0

13. Value of total annual production of all sorts of silk products may approximately come up to Rs. 68,242.

Value of total annual production of all sorts of matka silk products—Rs. 43,685.

14. No spun silk is used.

15. For silk refer to the reply of question No. 2. As regards Matka the entire supply is made by the local dealers.

16. Yes.

Approximately Rs. 100 at a time per loom, final adjustment being made at the close of the Bengali year when fresh advance is given.

17. Importers' agent sell the raw silk to the weavers through the retailers (who are all middlemen Mahajans).

18. Indian silk still maintain its position in defying competition with imported silk as regards durability and lustre but it cannot compete in price.

Cloths woven with foreign silk in whole or in mixture compete seriously in price in the market as such merchants and stockists prefer its use as it gives them profit by sale of silk also. These stuffs are often passed as purely indigenous goods. These silk fabrics being too inferior in durability and lustre compared with pure indigenous goods have created a bad name of Shibganj cloth in the market for which the weavers consider their reputation at stake. The weavers however cannot help using foreign silk which they get in exchange for woven cloths as there are no buyers of purely indigenous goods at a higher price. The only buyers are the merchants who are interested in pushing foreign silk. The weavers are eager to revert to their business with indigenous silk if the price of finished goods prepared therefrom can be made cheaper than those produced from imported silk which means the price of imported silk should be made higher by all means.

19. There is no regular agencies where silk yarn is sorted or graded excepting the dealers who does it after a rough outward test.

Yes.

Yes.

20. Yes.

Conditions are the same as was pointed out 5 years ago. In some cases middlemen supply yarns to weavers and take back the finished goods on payment of nominal wages. In other cases the middlemen advance silk yarn to the weavers which is treated as credit sale, value of which is debited to the weavers' account according to market rate. The middlemen also take commission on the sale of fabrics produced therefrom at the time of final adjustment of account. If any loss has to be incurred it goes to the share of the weavers.

21. The position is the same as was found by the last Tariff Board. No efforts have been made to remedy these defects.

22. Same situation exists.

No.

23. Weavers of this area never use artificial silk.

24. The position found by Tariff Board still continues and the present rate of duty is not considered to be sufficient.

25. Statement showing variations in cost price and sale price since 1933-34—

	1933-34.			1937-38.		
	Cost price.	Sale price.	Weavers' wages.	Cost price.	Sale price.	Weavers' wages.
	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.
Sarees—Red Border—						
5 yds. x 44"	8 8	10 0	2 4	5 0	5 14	1 8

With regard to other items information are not traceable as figures of annual variation in cost price and sale price are not available.

26. The present duty on silk fabrics has not proved beneficial to hand-loom weavers.

27. No.

28. As per statement enclosed.

29. There is no Co-operative Organisation Societies in this area.

30. The middlemen merchants take the finished goods to Mirzapur and Calcutta markets.

Nominal charges are paid by way of freight and cooly charges.

31. Increasing.

32. The sources of supply are as shown below:—

Indigenous silk.—Reelers of Malda, Birbhum and Murshidabad.

Imported silk.—Mirzapur and Calcutta.

Matka.—Dealers of Malda.

6,500 lbs. of raw silk valued at Rs. 38,000 approximately.

5,500 lbs. of Matka valued at Rs. 16,500.

33. No.

34. None within my notice.

(6) *Letter No. 301-T, dated the 18th October, 1938, from the Deputy Director of Sericulture, Bengal.*

I have the honour to submit herewith six copies each of the following revised statements as desired by the Board. Others will be submitted when ready:—

- (1) Annexure " V " to the replies to the General Questionnaire (Revised).
- (2) Details of initial cost of Rs. 97 for starting an acre of land of bush mulberry.
- (3) Acreage under mulberry.



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ANNEXURE V.

[Reference to Question 22 (iii).]

Place of rearing.	Name of race.	Number of layings per kahan.	How many kahans per seer per kahan or seer of seed used.	How many kahans per 100 layings of eggs.	How many lbs. per 100 layings of eggs.	Number of cocoon in a lb.	How many lbs. per 140 layings of eggs.
Nurseries . . .	Nistari—						
	Average .	7.5	53.38	{	25.2	736	35.28
	Best .	4	73.3		51	600	71.4
Selected Rearers' houses .	Nistari—						
	Average .	8.9	{	14	22	800	30.8
	Best .	6		24.5	40	800	56.00
General Rearers' houses .	Nistari—						
	Average .	..	48	10.5	16	784	22.4
	Best .	..	76	12.3	18	720	25.2
Nurseries . . .	Chhotopolu—						
	Average .	7.36	..	..	..	..	..
	Best .	5.2	..	..	28.3	660	39.62

Selected Rearers' houses	Chhotopolu . . .	6-00	..	16-8	..	..	..
General Rearers' houses	Chhotopolu—						
	Average . . .	..	27	..	..	..	..
	Best . . .	..	60	..	..	..	..
Nurseries . . .	Barapolu—						
	Average . . .	14-00	..	..	{ 15-85	645	22-19
	Best . . .	12-5	..	..	{ 42-00	512	58-8
Selected Rearers' houses	Barapolu—			24-1	..	..	..
General Rearers' houses	Barapolu—						
	Average . . .	4-00	33-6	12-6	..	..	..
	Best . . .	..	39	24-1	..	..	..
Nurseries . . .	Nistid—						
	Average . . .	6-8	65	..	{ 46-7	456	65-38
	Best . . .	4	100	..	{ 76	344	106-4
Selected Rearers' houses	Nistid—						
	Average . . .	8-8	..	12-9	18	..	25-2
	Best . . .	4-5	..	22-7	20	..	28-00

ANNEXURE V—*contd.*[Reference to Question 22 (iii)]—*contd.*

Place of rearing.	Name of race.	Number of layings per kahan.	How many kahans per seer per kahan or seer of seed used.	How many kahans per 100 layings of eggs.	How many lbs. per 100 layings of eggs.	Number of cocoon in a lb.	How many lbs. per 140 layings of eggs.
General Rearing's houses	Nistid—						
	Average .	6.9	40.4	13.3	34.2	486	47.88
	Best .	..	56	14.5	33.5	480	53.9
Nurseries . . .	Nismo—						
	Average .	5.56	..	..	58.5	417	81.9
	Best .	4.3			77.2	304	103.68
Selected Rearing's houses	Nismo—						
	Average .	5.5	..	17.9	..	..	..
General Rearing's houses	Nismo . . .	..	50	..	..	..	..
Nursery . . .	Italian . . .	9.4	..	..	59.5	320	83.3
Nursery . . .	Cross (Barapolu × Italian)	6.8	..	..	50	320	70.00

Details of initial cost of Rs. 97 for starting an acre of land of bush mulberry.

Details of work.	Amount. Rs. a.	No. of men.
1st digging	15 0	45 men at 3 men per rupee.
Ploughing	4 8	at Rs. 1-8 per bigha.
2nd digging	9 0	36 men at As. 4 each.
Levelling and cutting drains	6 0	24 men at As. 4 each.
Price of cuttings	3 12	30 maunds at As. 2 per maund.
Carrying cuttings	1 0	Lump sum.
Sorting and preparing cuttings	7 8	30 men at As. 4 each.
Planting cuttings, making rows, etc.	11 4	45 men at As. 4 each.
<i>Manuring—</i>		
Cost of manure	15 0	at Rs. 5 per bigha.
Spreading cost	3 0	on contract.
3rd digging	9 0	36 men at As. 4 each.
Weeding	9 0	at Rs. 3 per bigha.
Pruning	3 0	12 men at As. 4 each.

97 0

(Rupees ninety-seven only).

Acreage under mulberry.

The following facts are traceable:—

Lefroy's Report, Vol. I, page 18 and Ansorge's, Vol. II, page 95—

	1910-11.	1914-15.
Malda, Murshidabad and Birbhum	21,424	17,862
Rajshahi, Hooghly, Burdwan, Nadia and Bogra	1,636	695
Total	<u>23,060</u>	<u>18,547</u>

1928-29.

Census taken through President Panchayats of village unions—

Malda, Murshidabad and Birbhum	17,205
Midnapore and Bankura districts	370
Total	<u>17,575</u>

1932-35.

Census taken through departmental demonstrators—

Malda, Murshidabad and Birbhum	9,656
Bankura	376
Total	<u>10,032</u>

1936-37.

Census taken by departmental officers when centres and circles in the districts were formed with the Government of India's help—

	Bush.
Malda, Murshidabad and Birbhum	9,415
Midnapore and Bankura	32
Total	9,447
<hr/>	
No. of trees—	
Malda	42,837
Murshidabad	1,057
Birbhum	8,712
Midnapore	30
Bankura	1,045
Total	53,681
	<hr/>

The statement before the Tariff Board as regards 25,000 acres of mulberry at page 182 of Written Evidence, Vol. I, is admitted to have been made on the basis of Prof. Lefroy's estimate but there appears to be some discrepancy because Mr. Lefroy makes mention of 18,547 acres (in 1914-15). Mr. Chaudhuri supposes about 8,000 acres to be present in the other districts except Malda, Murshidabad and Birbhum. But such a high acreage of mulberry is not traceable even in any of the previous years, since 1910 as shown above.

That the area under mulberry at one time in Bengal was very large (though records are not traceable) would appear from the large exports of raw silk (about 1,400,000 lbs. in the peak year 1829—Lefroy's Report, Vol. III, page 7) in addition to meeting the internal demand for weaving which too was carried on on a large scale at the time. Sericulture used to be practised in 16 districts but is now virtually present only in three. Mr. N. G. Mukhorji computed the area under mulberry at about 60,000 acres in 1900.

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(7) *Letter from the Deputy Director of Sericulture, Bengal, Berhampore, No. 314-T, dated the 6th November, 1938.*

I have the honour to submit in duplicate the information asked for on several points in the sheets attached hereto.

1. The number of reeling hasins were recorded in 1936-37 as 4,147, of which 2,160 were working.

2. The number of Government nurseries at present is 7.

3. Rent varies from district to district being about Rs. 4 in Malda, Rs. 8 to Rs. 10 and in some cases up to Rs. 15 per acre in Murshidabad and Birbhum.

4. Approximate production of waste in 1937-38 is about 150,000 lbs. valued at about Rs. 38,000.

5. The selling price of mulberry leaves as gathered from census is shown below:—

(a) 20 rearers of Malda purchased 911 mds. of leaves (with twigs) for Rs. 461-1-3.

This works out at 2-4 pies per lb. without twigs or 79-05 lbs. per rupee.

- (b) 8 rearers of Murshidabad purchased 119 mds. 30 srs. (with twigs) for Rs. 97. This works out at 3.8 pies per lb. without twigs or 49.3 lbs. per rupee.
- (c) 7 rearers of Birbhum purchased 110 mds. 26 srs. 8 ch. for Rs. 82.8. This works out at 3.5 pies per lb. without twigs or 53.6 lbs. per rupee.

6. With regard to figures on the basis of Tables XXIII and XXIV of the Tariff Board's report—

For starting mulberry on a new land work is commenced usually in May and continued for one year for which the cost of Rs. 97 is incurred without any yield of leaves. In the 13th month the first crop is cut out and rejected and maintenance and yield have to be calculated from this time. Therefore it is hardly clear how Table XXIV is to be compiled. The whole of the first year's cost is extra cost.

(8) Letter No. 313-T, dated the 7th November, 1938, from the Deputy Director of Sericulture, Bengal.

I have the honour to submit four copies each of replies to supplementary questions which arose in the course of the oral evidence of the Bengal Government representatives. The replies are numbered according to the list of supplementary questions attached hereto.

Replies to questions 1, 3A and 7 have already been submitted under this office No. 301-T, dated the 18th October, 1938.

In order to explain fully the position with regard to weaving a comprehensive note has been prepared and four copies of this too are submitted.

Enclosure I.

A note on Silk weaving by handloom weavers in Bengal.

The following kinds of weaving are carried out.

I. *Silk (Garad)*.—(1) Woven with twisted and bleached thread—Sari, dhoti, than (gown piece), chadar and handkerchief. Dyed threads are used for border and designs. Principal centres of weaving are Vishnupur and Sonamukhi in Bankura district, Panchgeche in Birbhum district, Mirzapur in Murshidabad district and Shihganj in Malda district.

The looms used are all handlooms. Jacquards have been adopted to a great extent in Vishnupur where 295 Jacquards are in use. There are 12 Jacquards in Sonamukhi and 2 in Mirzapur.

(2) Woven *kora*, i.e., with raw silk unbleached and untwisted. Same varieties as above are woven and necessarily of inferior quality. The pieces are bleached after weaving and used in this condition. A good portion of this stuff is now printed. Printing is done by special printers and much of the stuff is sent out as far as Bombay to be printed.

Principal centres of weaving are Baswa and Bistoopur in Birbhum district, Islampur, Kandi and other places in Murshidabad district and Sonamukhi and Birsinga in Bankura district and also to a small extent in Bogra and Rajshahi. Looms are all handlooms with only a few flyshuttle ones in Baswa.

II. *Matka or handspun silk*.—The principal centres of weaving are Chawk Islampur in Murshidabad district, Shihganj in Malda district and to a small extent in a few other places.

Looms are handlooms with only a few flyshuttle ones.

III. *Tasar*.—Practically similar to *Kora* weaving. But details are not available yet. The principal centres of weaving are in Birbhum district and a little in Bankura district. Only handlooms are in use.

IV. *Kota or handspun tasar*.—Practically similar to *Matka* weaving but details are not available yet. The principal centre of weaving is Chengdola in Bankura district. Only handlooms are in use.

V. *Eri*.—Only a little weaving is done and details are not available. *Eri* yarn produced in the province is exported to Assam where the principal eri-weaving is done.

An approximate estimate of the extent of the above kinds of weaving would—

	Per cent.
I. (1) Silk bleached and twisted	30
(2) <i>Kora</i> unbleached and untwisted	30
II. <i>Matka</i>	25
III. <i>Tasar</i>	10
IV. <i>Kota</i>	4.9
V. <i>Eri</i>	0.1

Solvency of silk weavers.—Actual census as far as carried out show below the number of weavers who are solvent and can carry on work on their own account.

District.	No. of weavers investigated.	Percentage solvent.	Percentage insolvent.
Silk weavers—			
Bankura	772	16	84
Birbhum	388	12	88
Malda	66	60	40
Murshidabad	600	12	88
<i>Tasar</i> weavers—			
Birbhum	98	84	16
<i>Matka</i> weavers—			
Murshidabad	257	80	20

The silk weavers are very badly off. This is the result of unfair competition from outside to which *Matka* and *Tasar* are not exposed.

Twisting of Silk Yarn—

At Shibganj—

Twisting in raw condition is done by professional twisters (*Chambalia*) a man and a boy working together who sit under a shelter. Double threads are stretched through loops fixed on poles to a distance of 28 *gaj*, each *gaj* being 4 feet. Seven pairs of such thread are worked at a time and called a turn. Small spindles are fixed to the ends which hang in front of the workers and twisting is done by rubbing the stalks of the spindles between the palms of both hands. When the length of the two ends of each pair shortens by one cubit twisting is taken to be complete. Fourteen turns make one *ghuman*.

The total length of thread in a *ghuman* is $7 \times 2 \times 28 \times 4 \times 14$ ft. = 21,952 ft. = 7,317 yds. doubled thread or 14,634 yards. If the weight of a *ghuman* be $2\frac{1}{2}$ tolas or one ounce (one tola = weight of a rupee) the silk is taken to be 18-20 denier.

If the silk is good ten *ghumans* or ounces are done in a day from morning till evening by a man and a boy. The rate paid is Re. 1 per 24 *ghumans*, i.e., ounces or about 11 annas per lb. Therefore the pair earns about $6\frac{1}{2}$ annas per day, the man 4 annas and the boy 2 annas.

At Mirzapur—

The process is practically the same but the length of the stretch is 22 *gaj* and 15 turns make a *ghuman* and the total length of raw silk in a *ghuman* is about 14,080 yards. A man and a boy can do about 8 ounces in a day of 8 hours receiving 6 annas, the man 3 annas 6 pies and the boy 2 annas 6 pies. The rate comes to about 12 annas per lb.

At Berhampore the method is to 10 lengths at a time to make one turn (*fer*), the length being 40 yards of 36" each. Four turns make one *pheti* weighing one tola (weight of a rupee). The charge paid is $\frac{1}{2}$ annas per tola. One man turns out 12 tolas in a day and paid 6 annas plus one anna 6 pies for a boy as helper. The charge paid by weaver is Rs. 2 per lb. and the twister has got to manage with this amount.

At Sonamukhi Babu Hanumandas Sarda has made arrangements for twisting on an improved machine with by-cycle wheels doing 10 threads at a time. Degummed and doubled or trebled threads are twisted. One boy winds pirus which are fitted to the machine and twisting done by another man. About six ounces of twisted thread is produced in about 10 hours and the rate paid for both piru winding and twisting for bleached thread is 14 annas per lb. or about 5 annas 3 pies per day. Bahu Hanumandas has recently made better arrangement for twisting at Vishnupur by applying power to a slightly better type of machines designed by him.

The twisting described above is not the proper twist adopted in silk weaving in advanced countries. Individual threads should be twisted and then doubled and twisted in the reverse direction. Twisting is best done on up-to-date machinery. This is being arranged for in the reorganised Technological Institute and supply of properly twisted yarn and also crepe yarn will be arranged for for the handloom weavers.

Silk mills have their own arrangements for twisting. They do not supply the handloom weavers.

Dyeing of silk yarn.—Dyed thread is used for borders of saris and dhotis. Indigenous vegetable dyes have practically gone out of use. Ordinary dyeing is done by the weavers themselves. Messrs. Haverø Trading Company's agents go about demonstrating the use of dyes. The weaving demonstration parties of the Industries Department also do the same. The Silk Weaving and Dyeing Institute at Berhampore do some dyeing for weavers. The Pure Silk Bhandar and Azad Silk Cottage both of Vishnupur carry out the dyeing themselves of the silk required by the weavers working for them.

As regards cost the following notes are available.

At Shibganj for inferior kind of red border of saris in order to dye one lb. thread the weaver uses about $6\frac{1}{2}$ annas worth of dye and about 2 annas for fuel, etc. Good dyeing is costly. Dyeing in black cannot be done by the weavers and is got done by professional dyers at Berhampore who charge Rs. 4 per lb. of thread dyed and an additional charge has to be incurred for postage, etc.

One weaver dyer, Ram Krishna Rogha of Berhampore, does good dyeing in all colours at a charge of Rs. 3 per lb.

The following is the charge in the Silk Weaving and Dyeing Institute, Berhampore:—

Cost of degumming and dyeing 1 lb. of raw silk with any fast dye (after degumming 1 lb. of raw silk will come to 11 to 12 oz. of degummed silk).

Say—Indanthren Brilliant Green Dye.

Cost of degumming 1 lb. of raw silk—

	Rs.	A.	P.
1. Sajimati $\frac{1}{4}$ lb.	0	0	6
2. Neutral soap 2 oz.	0	0	9
3. Igepon T $\frac{1}{4}$ oz.	0	0	9
Cost of degumming materials	0	2	0
Departmental cost 50 per cent.	0	1	0
Cost of degumming	0	3	0

Cost of dyeing the same—

1. Dye $\frac{1}{4}$ oz.	0	10	6
2. Igepon T $\frac{1}{4}$ oz.	0	1	0
3. Caustic Soda 2 oz.	0	0	6
4. Sodium Hydro Sulphite 2 oz.	0	1	9
5. Glucose 2 oz.	0	1	0
6. Sulphuric Acid $\frac{1}{4}$ oz.	0	0	6
7. Neutral soap 2 oz.	0	0	9
Total	1	0	0
Cost of dyeing materials	1	0	0
Departmental charge 50 per cent.	0	8	0
Total	1	8	0

Cost of degumming and dyeing 1 lb. of raw silk is Rs. 1-11.

Dyeing and printing of silk fabrics.—Pieces to be dyed and printed are woven *kora*, i.e., with unbleached and untwisted raw silk. Usually the body of the pieces is dyed and printing of designs done on borders and in some cases on the body too. In the manufacturing industry only this line may be said to have made progress of late. Dyed and printed saris have come largely into use and new designs in printing stimulate sale. New designs are a very important factor in this line. About twenty dyeing and printing factories have developed in and in the neighbourhood of Calcutta. There is a very large and well equipped factory in Bombay known as Germania Dyeing and Printing House to which about 10 per cent. of goods to be dyed and printed are sent from Bengal, the remaining 90 per cent. being done in the province. *Kora* fabrics are sent to the dyers and printers who do washing, dyeing and printing.

Systems under which weavers work.—1. Some work on their own account. They purchase raw materials and weave and sell the products to local mahajans, outside dealers who come to make purchases or shop-keepers in towns.

2. Some mahajans have a clientele of weavers who do the weaving with raw materials supplied by the mahajans and get *bani* for weaving at stipulated rates.

3. The majority of the silk weavers carry on at present in a hand to mouth fashion. They do a piece which they take to the mahajan who

in some places are also the suppliers of raw silk. The raw silk is put in the account as sold to the weaver of course with a profit. When the woven piece is brought the piece is haggled down as much as possible and entered in the account. Deficits in the account accumulate and have been the cause of ruin of many weavers.

4. At Baswa there is a system called *janti* (clippers) according to which a mahajan gives out raw silk up to about 6 lbs. at a time at market rate plus 6 annas to 6½ annas extra per lb. of silk. The weaver weaves the silk, sells the products wherever he can and repays the mahajan.

5. Many weavers now work as journeymen with others who can employ them and get stipulated local rates and are not employed on fixed monthly wages.

The rates for rewinding, twisting and weaving are everywhere about half those prevalent about seven years ago.

I. (1) *Weaving with bleached and twisted thread.*—Notes on different centres are given below:—

Shibganj—Silk Weaving.—The silk loom in use here is of much better quality than that used in matka weaving and costs about Rs. 20 to Rs. 22 with necessary accessories. It lasts 40 or 50 years, occupies space 5½ cubits × 5½ cubits. Only minor parts require to be renewed. There are 139 looms at work here. Sari, dhoti, chadar and gown piece of the kind produced here are woven at Mirzapore in Murshidabad district and Panchgachh in Birbhum district and at no other place. Silk of good quality and 16 to 20 denier thick is used, five maunds being consumed every month.

The weavers are in distress. The economic situation is explained below:—

Formerly there were several local mahajans who were either weavers themselves or persons closely connected with weaving and understood the business. Their system of work was to advance silk to the weavers and pay for weaving charges at a certain rate (*bani* system). They used to sell the cloth to wholesale dealers and retail shopkeepers at Calcutta. On the supply of the cloth the dealers and shopkeepers used to pay 75 per cent. of the price and the balance was adjusted in the course of the year.

Marwari merchants then came into the field and at first used to buy their supplies from the local mahajans who naturally kept a small profit for themselves. The Marwaris then began to deal directly with the weavers and as the silk prices rose, not only paid to the weavers the same rates as to the local mahajans but often more in order to get work done as quickly as possible. The weavers thus left the old mahajans and began dealing with the Marwaris. The local mahajans were cut in another way. The Marwari dealers advanced cloth to the Calcutta shopkeepers on credit. Being masters of large funds they could afford to deal with the retail sellers on credit. The local mahajans were thus eliminated. The Marwaris being now masters of the situation stopped the *bani* system and purchased the woven fabrics from the weavers after haggling for the price and the price paid was often such as left the weavers with less than the old *bani*. There was now no alternative to the weavers but to part with the cloth sometimes with less than the cost of production.

The cloths produced are specialties limited to particular areas of weaving and the market also is limited. Actually there are too many Marwaris and too much capital engaged in the business. Therefore there is competition for sale among Marwaris themselves. Thus there is less profit in sale and this is made up by haggling down price paid to weavers and other exactions, such as charity, etc.

Some of the weavers went so far as to try to sell their produce at Calcutta. There however they were at a still greater disadvantage. The shop-keepers dictated any price they liked because they knew that the

weavers could not wait at Calcutta and must sell their cloth even at great loss. This was almost invariably the case.

The prices of the produce have thus been artificially lowered.

The quality of the produce has deteriorated as the weavers tried to accommodate themselves to lower prices by inferior and cheaper produce.

The result has been great hardship to the weavers. From statistics and calculations of selling prices and costs of production the weaver with the labour regularly applied of himself and the members of his family barely makes about Rs. 4 to Rs. 5 per month from four pieces he is able to weave on the average. If the artificial lowering of the price can be stopped there will be immediately a rise of Re. 1 or Rs. 1-4 per piece and the weaver can thus get about Rs. 9 or Rs. 10 per month. With this he would be satisfied. This is the prayer everywhere.

The only solution is to bring about an arrangement by which (1) the weavers can purchase his raw material, i.e., raw silk at a fair price at or near his village, (2) can dispose of his produce also at or near his village at a fair price, (3) and thus be left with his business of weaving.

Process of weaving with cost at Shilqani, Malda district.

Raw silk generally used—16 to 20 denier.

1. First winding—usually done by women folk in the midst of household work. One lb. done in about 5 days—wages paid 5 annas per lb.

2. Twisting for warp—3 threads together for border and 2 together for the ground—present rate 10 annas to 12 annas per lb.

Loss due to the above processes about 1/16 part. The rates were nearly double about seven years ago.

3. For a 16 sari warp.

	Rs.	a.
Raw silk 5 lbs. for tana (warp), 6 lbs. for bharna (wett) at Rs. 5-8 per lb.	60	8
(1) First winding (<i>Firan</i>) 11 lbs. at As. 5 per lb.	3	7
(2) Doubling and twisting of warp (tana) including border 5 lbs. -72 ghuman at 24 ghuman per rupee	3	0
(3) Drawing out the warp (<i>Panikata</i>) 36 pairs ghuman at As. 1-3 per pair	2	13
(4) First spreading out and examining and arranging the warp (<i>Tabandi</i>) mutually helped and not paid for . . . . .	...
(5) Bleaching (<i>Khari</i>) of the warp done by weaver—		
$\frac{1}{2}$ annas per ashes	} 0	4
Soap—1 cake		
(6) Dyeing of border—1 $\frac{1}{2}$ lbs. silk in red for red bordered saris	0	12
(7) Examining warp while wet (<i>Khari Tabandi</i>)	} Done with mutual help.	
(8) Winding up the warp (<i>Joran</i>)		
(9) Sizing—done by weaver with <i>Khari</i> (parched paddy) paste	0	1
(10) Examining sized warp—done mutually (<i>Manda Tabandi</i>) . . . . .	...
Total	70	13

	Rs. A.
Brought forward	70 13
(11) Fitting in rods in place of the thread leashes (<i>Jau gantha</i>) done by the weaver . . . . .	...
(12) Fitting into reed (<i>Sana gantha</i>)—done by the weaver . . . . .	...
(13) Beaming (<i>Jaran</i>)—done by the weaver with mutual help . . . . .	...
(14) Border fitted on separate warp—done by the weaver . . . . .	...
(15) Weaving the healds (<i>Bau-tola</i>)—done by the weaver . . . . .	...
The threads of the healds cost As. 8 and lasts four weavings	0 2
(As will appear from the above many of the processes are not paid for and the actual cash expenses for preparing and setting up a warp weighing about 58 ounces come to about Rs. 7-13 or about Rs. 2-4-3 per lb.)	
(16) Doubling of weft (<i>Bharna</i>) at one anna per lb. extra—for 6 lbs. at As. 4 as three threads are put in together	0 6
(17) Bleaching the weft (<i>Bharna khari</i>) for every 2 lbs. 1 soap, $\frac{1}{2}$ lb. soda and fuel	0 8
(18) Winding weft after bleaching (<i>Bharna khari firan</i>) for 4 lbs. at 5 annas per lb.	1 4
(19) Quilling As. 2 per piece	2 0
(20) Finishing—the cloth is spread out and <i>khari</i> starch applied and dried at $\frac{1}{2}$ anna per piece	0 8
Total	<hr/> 75 9 <hr/>
Receipt by sale of 16 pieces at Rs. 5-8 per piece	88 0
Less cost of production	75 9
Weaver gets	<hr/> 12 7 <hr/>

A weaver does 50 pieces in a year or 4 pieces per month therefore he earns Rs. 3.

Much of the labour is not paid for and the weaver earns generally Re. 1 per piece or Rs. 4 to 5 per month.

If by weaving he can earn Re. 1 more per piece his earning goes up to Rs. 9 or Rs. 10.

Processes with cost at Sonamukhi.

For a warp (*ganta*) for 24 pieces of sari, each 5 yards \times 45 inches ready. The warp is to be 3 yards more in length and 47" wide.

Required—6 lbs. raw silk for warp.

14 lbs. raw silk for welt.

	Rs.	A.	P.
Processes for warp -			
1. For bleaching 6 lbs. warp -			
Soda 1½ lbs.	0	2	0
Sunlight soap 3 cakes	0	2	3
Fuel	0	2	0
Labour for boiling, washing, stretching and drying the hanks, 2 men	0	12	0
Loss in weight about 25 to 28 per cent. each lb. of raw silk yielding about 11 to 11½ oz. in bleached condition . . . . .	...	
Six lbs. yield about 4 lbs. 5 oz. bleached . . . . .	...	
2. Rewinding the single thread in bleached condition at 5 annas per lb. for 4 lbs. 5 oz.	1	6	0
3. Doubling, trebling or quadrupling at 4 annas per lb.	1	1	6
4. Sizing with <i>Khai</i> (parched paddy)—starch cost about 1 anna, starching done by weaver himself	0	1	0
5. Rewinding after starching at 2½ annas per lb.	0	9	0
6. Twisting at 14 annas per lb.	2	13	0
Total	7	0	9

Therefore to get bleached yarn ready for warp the cost per lb. excluding the price of the silk is Rs. 1-10. The twisted thread is now handed over to weavers who do the warping and weaving. To get the warp for 24 pieces ready for weaving the weaver takes about a month and weaving regularly done takes about two months to complete the 24 pieces. Therefore on the average eight pieces are done in a month. He takes the help of the members of the family and for some processes the help of as many as four weavers is required. All weavers depend on such mutual help. The *bani* the weaver receives is Rs. 2-8 per piece for ordinary borders and Rs. 5 to Rs. 8 for complicated designs on Jacquards.

The processes for setting up the warp and weaving for which the above *bani* is paid are—

- (1) Starching.
- (2) Rewinding after starching.
- (3) *Narmakara*, i.e., separating out in batches of twenty threads together on a swift.
- (4) Stretching out the warp.
- (5) *Jakara* or separating out the loops at one end as the warp is stretched.
- (6) Fitting the warp into a wide-meshed reed.
- (7) Removing entanglements and beaming at the same time.
- (8) Applying starch on the warp which is spread out and held in a stretched condition for the purpose and brushed and the wide meshed reed is pushed from one end to the other. The warp is beamed up for the loom.

- (9) Fitting into the weaving reed.
- (10) Preparing the healds.
- (11) Starching the weft threads.
- (12) Preparing pirus.
- (13) Weaving.

The cost of producing 24 pieces sari in one warp is as follows by Babu Hanumandas Sarda's firm—

	Rs. A. P.
Raw silk 20 lbs. at Rs. 6-8 per lb. He says he pays one rupee per lb. more than the prevalent rate in order to get good thread	130 0 0
Bleaching expenses	3 2 0
Rewinding after bleaching	4 11 0
Doubling	4 4 6
Rewinding after starching	2 5 6
Twisting	13 0 0
Weaving	60 0 0
Dyeing of threads for border	6 0 0
Washing 1 anna per piece	1 8 0
Finishing 1 anna per yard	7 8 0
Total	233 7 0

or Rs. 9-12 per piece.

The Pure Silk Cloth Bhandar, Vishnupur, had 88 weavers at Sonamukhi and according to figures supplied by the Bhandar for 11 months from February to December, 1937.

Average length of saris woven by each weaver in a month is	20·3 yards.
	Rs. A. P.
Average <i>bani</i> paid per yard	0 11 8
The earning of a weaver per month varied from about Rs. 1-8 to Rs. 22-4 and the average was	8 6 8

The same Bhandar had during the same period of 11 months 55 weavers at Vishnupur.

The average length woven by a weaver per month	24·7 yards.
	Rs. A. P.
Average <i>bani</i> paid per yard	0 15 8½
The earning of a weaver in a month varied from about Rs. 3 to Rs. 62 and the average was	24 4 4½

A kind of very thin flimsy saris and *jors* (sari and a chadar piece) together dyed in fleeting colours is woven in Sonamukhi, Vishnupur and Birsinga in Bankura district costing about Rs. 2-2 to Rs. 3-8 per piece. They are exported to Behar, the United Provinces and Orissa for use in marriages. The complaint of the weavers is that mahajans wanted cheaper and cheaper quality, thus leading to deterioration in quality.

Processes with cost at Berhampore.

For good pieces of saris as woven at Berhampore each measuring 5½ yds. × 46".

For a full tana for eleven saris 60 yds. 2 ft. ($\frac{1}{2}$ inch length in excess is required for every $5\frac{1}{2}$ yds. of cloth).

	Rs. A.
1. Raw silk for body only 4 lb. at Rs. 6 per lb. . .	24 0
2. Expenses for preparing the warp—	
(a) Rewinding at As. 8 per lb. . .	2 0
(b) Twisting at Rs. 2 per lb. . .	8 0
(c) Spreading out the tana at As. 7 per lb. . .	1 12
	11 12

N.B.—The warp losses $1/16$ in weight in the above two processes.

3. Raw silk for border $2\frac{1}{2}$ lb. at Rs. 6 per lb. . .	15 0
(a) Dyeing the border in fast red dye, caustic soda, soap, etc. . .	3 8
(b) Water, fuel, labour, etc., one rupee per lb. of degummed thread . . .	2 0
	5 8

4. Bleaching the warp and border total weighing $6\frac{1}{2}$ lb.—

	Rs. A.
(a) Soda . . .	2 6
(b) Soap . . .	3 6
(c) Fuel . . .	4 0
(d) Labour (own)—if hired two men for 10 annas per day . . .	0 10

5. Starching the warp at 2 annas for every piece . . . 1 6

6. Beaming the warp usually done with mutual help at least 4 men being required who are given only one feed . . . 0 8

7. (a) Fitting into the reed usually done by weaver. If hired labour engaged two men required for a day for 10 annas . . .

(b) The reed with 2,700 dents costs Rs. 3-6 but is used for 4 weavings. Therefore cost for a single weaving . . . 0 13

8. (a) Preparing the heald (*Baw-tola*) usually done by the weaver himself. It takes 4 days if properly done but can be done in 3 days indifferently . . .

(b) The string costing Re. 1 lasts for 4 weavings, therefore for one weaving . . . 0 4

9. Raw silk for weft $5\frac{1}{2}$ lb. at Rs. 5-8 per lb. . . 30 4

Preparing the weft—

	Rs. A.
(a) Rewinding at As. 8 per lb. . .	2 12
(b) Bleaching . . .	0 14
(c) Rewinding the bleached thread $3\frac{1}{2}$ lbs at As. 4 per lb. . .	0 15
	4 9

10. *Bani* for weaving at As. 8 per yard for the total of 11 pieces, i.e., $60\frac{1}{2}$ yds. . . 30 4

11. *Piru* winding at As. 4 per piece, i.e., $5\frac{1}{2}$ yds. for 11 pieces . . . 2 12

Total . . . 127 10

Therefore the cost of production to the weaver per piece is Rs. 11-9-8.

The weaver has to sell it probably at Rs. 11 or even at Rs. 10-8 to the mahajan who sells it usually at not less than Rs. 13. Here the difficulty of the weaver who carries on work on his own account.

For such pieces a mahajan who wishes to get good cloth prepared pays the raw silk and the total weaving cost at Rs. 6 per piece which covers all cost on condition that each piece of sari is completed with about one lb. of raw silk. In the above case sari has consumed 14/16 lb. and apart from price of raw silk the cost has come up to Rs. 5-5 per piece. Under such conditions the mahajan will not pay the weaver Rs. 6 but only Rs. 5-8 per piece. The mahajan thus exercises a control on the weaver. Expert weavers as a rule can turn out such pieces with only about a lb. of raw silk without interference with quality.

For weaving pieces the time taken is about three months. On the average 40 pieces can be woven in a year apart from the time taken to prepare and set up the warp, about ten to eleven days for each warp.

PROCESSES WITH COST AT MIRZAPORE.

Preparation of the warp.

1. Rewinding or re-reeling of raw silk done with hand, about 2 ounces being done in a day for which 9 pies is paid or about 6 annas per lb.

2. Doubling and twisting done by professional twistors (*Chambalia*) a boy and a man doing about 8 ounces in a day for which 6 annas is paid or 12 annas per lb.

3. For stretching out the warp for every five yards and 46 inches wide *bani* paid is $1\frac{1}{2}$ to $1\frac{1}{4}$ annas. For fourteen sari warp the total *bani* paid is about Rs. 1-5 which is earned in about 4 days or 5 annas a day.

4. Tying up the stretched warp by passing threads at the alternate loops—done by the weaver himself.

5. Bleaching—For every two lbs. of raw silk $\frac{1}{2}$ lb. soda and one cake sunlight soap are used and including fuel the cost comes to about 4 annas. The bleaching is done by the weaver himself.

6. The bleached warp is soaked in water for 24 hours.

7. Removing entanglements and retying the loops (*Khari tabandi*). Labour paid at $7\frac{1}{2}$ pies per every five yards or about 9 annas for a 14 piece warp.

8. Sizing with *Khai* starch (parched paddy) cost about one anna for whole warp. Sizing done by the weaver himself.

9. Fitting in rods at the loops (*Jhap parana*) done by the weaver himself.

10. Fitting into reed—done by the weaver himself with the help of a boy.

11. Fitting on the beam—done by the weaver himself.

12. Fitting on the loom—done by the weaver himself.

13. Preparing healds (*baw tola*)—done by the weaver himself.

Preparation of weft.

1. Rewinding at above rate.

2. Boiling off at above rate.

3. Second rewinding and doubling at half rates.

4. Piru winding and starching at the same time. *Bani* paid 1s 1 anna for every five yards woven. The piru winder supplies pirus to 4 weavers at a time and earns about one anna per day.

The following is an instance of cheaper weaving producing inferior cloth with 13-15 denier thick silk almost wholly imported at Mirzapur. The mahajan advances the raw silk and *bani* for every piece 5 yds. x 45" at the rate of Rs. 2-8 which has to cover all expenses.

For 14 *dhoti* pieces woven on one warp—

For warp 4 lbs. raw silk }
 „ weft 6 lbs. „ „ } advanced.

For preparation of warp cost incurred is as follows:—

	Rs.	A.	P.
(a) Rewinding at 6 annas per lb.	1	8	0
(b) Twisting at As. 12 per lb.	3	0	0
(c) Laying out the warp at 1½ annas for every five yards	1	5	0
(d) For degumming the warp (labour own)	0	8	0
(e) <i>Tabandi</i> or arranging the warp. 6 men for half day required but carried out with mutual help and only one feed being given to the men . . . . .	...	
(f) Fitting rods at the loops (<i>jaa-parana</i>) 2 men (done by weaver) . . . . .	...	
(g) <i>Joran</i> or beaming. 5 men for one day, but mutually helped . . . . .	...	
(h) Fitting into reed—2 men for 1 day—done by weaver . . . . .	...	
(i) Preparing heald—1 man for a day—done by weaver . . . . .	...	

For preparation of weft—

(a) Degumming 6 lbs.	0	12	0
(b) Rewinding and doubling after degumming about 4 lbs. at 3 annas per lb.	0	13	6
(c) Piru winding	0	14	0

Total 8 12 6

For 14 pieces *bani* received is Rs. 35. Therefore actual cash receipts after deduction of expenses is about Rs. 26-3-6 or about Rs. 1-14 per piece

which includes his own labour and labour mutually rendered. On the average 6 pieces are woven in a month.

	Rs.
The cost to the mahajan is price of raw silk 10 lbs. at Rs. 5-8 per lb.	55
Bani paid for 14 pieces	35
	—
Total	90
	—

This works out to about Rs. 6-6-10 per piece. The selling price is said to be about Rs. 6-12 to Rs. 7-8.

Cost at Silk Weaving and Dyeing Institute, Berhampore.

An estimated cost of manufacture of 24/26 denier mulberry silk into sari fabric.

	Rs. A.
(1) Cost of 1 lb. of reeled silk yarn reeled on Italian basin in the Institute	6 8
(2) Cost of winding 1 lb. of silk yarn working 8 hours per day	0 10
(3) Cost of twisting the same yarn	2 0
(4) Cost of degumming the same yarn	0 3
(5) Cost of dyeing the border yarn only with any fast dye (including departmental cost)	0 8
	—
Cost of finished yarn	9 13
	—
(From 1 lb. of raw silk only 12 oz. of finished yarn is obtained after degumming and dyeing and therefore 1 lb. of finished silk comes to Rs. 13-6 only.)	
(6) Cost of finished silk yarn 1 lb.	13 6
(7) Bobbin winding at As. 2 per lb.	0 2
(8) Cost of warping of 1 lb. of silk	0 4
(9) Cost of weaving at As. 3 per yard of 8½ yds. x 47" silk piece or about 1½ pieces of silk sari	1 10
(10) Overhead and other charges including profit	2 0
	—
Total	17 6
	—

The cost of 1 piece 5½ yds. best quality of silk sari from the above estimate comes to Rs. 11-12 approximately.

I (2) Kora weaving.—Baswa (Birbhum district). Here Kora (unbleached) and untwisted weaving is practised, Sri Gandhi Ashram which has

54 weavers working under it has supplied the following figures from their books for a period of about four years—May, 1933, to June, 1937.

No. of square yards woven by the weavers in a month has varied from about 28 to 103 and on the average per weaver . . . 41 sq. yds.

On the average silk used per square yard of woven fabric 4½ tolas.

Rs. A. P.

The earning per month per weaver has varied from Rs. 4 to Rs. 15-15 and on the average per weaver 7 7 1

Average earning per square yard 0 0 7-9

Similar figures supplied by the Pure Silk Bhandar which worked with 62 weavers from February to December, 1937, i.e., for 11 months. This form showed only lengths in yards.

Average outturn by a weaver per month . . . 17-7 yards.

Rs. A. P.

Average wages paid to the weaver per yard . . 0 2 9

Average wages earned by a weaver in a month 3 0 11

Sri Gandhi Ashram gave on 3rd January, 1938, the following estimates of cost and earning by weavers.

Saris 6½ yds. × 45 inches.

Rs. A. P.

For one warp for 11 saris with blouse pieces—

1. Price of 2½ lbs. raw silk for warp at Rs. 6-8 16 4 0

2. Price of 4½ lbs. raw silk for weft at Rs. 6 28 14 0

3. Winding or re-reeling of 2½ lbs. warp . . . 0 12 6

4. Preparing the warp 0 15 0

5. Weaving and piru winding done by the weaver and his family

Total cash expenses . . . 46 13 6

Receipt by sale of 11 pieces at Rs. 5 each 55 0 0

Income of the weaver representing the return for his labour for 33 days work . . 8 2 6

Gown pieces 10 yds. × 36 inches.

Rs. A.

For one warp for seven pieces—

1. Price of 2 lbs. raw silk for warp at Rs. 6-8 . . 13 0

2. Price of 4½ lbs. raw silk for weft at Rs. 6 27 6

3. Winding or re-reeling of 2 lbs. warp . . . 0 10

4. Preparing the warp 0 14

Total cash expenses . . . 41 14

Receipt by sale of 7 pieces at Rs. 7 each . . 49 0

Income to the weaver for weaving piru, winding, etc., during 35 days . . . 7 2

Cost of production of printed goods.

For a sari and blouse piece $6\frac{1}{2}$ yds. \times 45 inches (the practice is to have $5\frac{1}{2}$ yds. sari and one yard is printed for a blouse).

	Rs.	A.	P.
(1) If woven with one thread in the warp and necessarily of thinner quality—8 ounces raw silk at Rs. 5-8 per lb.	2	12	0
Bani for weaving	1	8	0
Total	4	4	0

These sell in wholesale market at Rs. 4-12 to Rs. 5.

	Rs.	A.	P.
(2) If woven with double thread in the warp—			
11 ounces raw silk at Rs. 5-8 per lb.	3	12	6
Bani for weaving	1	8	0
Total	5	4	6

These sell in wholesale market at Rs. 5-12 to Rs. 6.

Dyeing and printing each piece costs Rs. 2 to Rs. 5 according to quality and design. Dyeing, printing and transit charges where printing is done at the minimum rate come to about Rs. 2-8. A sari costing about Rs. 8-8 generally sells at Rs. 9 to Rs. 9-8.

Handkerchiefs $18'' \times 18''$ are cut from pieces 10 yards \times 40'', twenty handkerchiefs being obtained from the piece. The approximate cost is as follows with double thread in the warp—

	Rs.	A.	P.
14 ounces of raw silk at Rs. 5-8 per lb.	4	13	0
Bani for weaving	2	4	0
Total	7	1	0
Each handkerchief costs	0	5	8
Printing charges for each piece	0	2	0
Total	0	7	8

Wholesale price is about Rs. 6 per dozen. Retail price per piece is 10 annas.

	Rs.	A.	P.
With single thread in the warp—			
11 ounces of raw silk at Rs. 5-8 per lb.	3	12	6
Bani for weaving	2	0	0
Total	5	12	6
Cost per piece	0	4	7
Printing cost	0	2	0
Total	0	6	7

Wholesale rate—Rs. 5-4 per dozen. Retail price 8 annas per piece.

Matka weaving (Islampore).

Process of matka weaving with cost.

Weavers purchase the thread in the weekly *hāt* on Thursday in small hanks called *pheti*. Then the processes carried out are the following:—

- (1) *Winding*.—The *phetis* are rewound into large hanks each weighing about 8 ounces. Usually done by the weavers' family. If by hired labour rates paid are 9 pies per lb.
- (2) Soaking the hanks for a night in water.
- (3) Degumming (*khari*).

About 10 lbs. thread is degummed at a time with soda at the rate of two ounces for every lb. of thread and occasionally with soap in addition. Soda costs about 1 anna 3 pies and fuel about 2 annas. The hanks are then washed and dried. All this is done by the weaver himself. If by hired labour it costs 4 annas for a man. Loss in degumming of thread prepared with pulso meal is about 7/16.

- (4) Rewinding after degumming (*khari-phiran*) into hanks weighing about one ounce. Usually done by the family members. If by hired labour rate paid is $7\frac{1}{2}$ pies per lb. of degummed thread.
- (5) Sizing with size prepared by boiling meal of sundried (not par-boiled) rice. For every lb. of thread about 5 ounces of rice meal is required. Done by the weaver.
- (6) Rewinding in wet size. Usually done by the family members. If done by hired labour the rate paid is $7\frac{1}{2}$ pies per lb. of degummed thread.
- (7) Preparing bobbins for warp. Usually done by family members. If by hired labour rates paid are half anna per lb. of degummed thread.
- (8) Stretching out warp for a 12 sari length (60 yds. \times 44")—warp should be $\frac{1}{4}$ inch more for each yard of woven cloth length and weft should be 1 inch more than the width required in the woven cloth.

Rates paid are—

	As.
For 900-1,400 threads <i>tana</i>	8
For 1,600-2,000 threads <i>tana</i>	12

- (9) Preparing healds—for a 44 inch piece one man takes a whole day and paid 6 annas if plain and 3 hours more if twill and paid 9 annas.
- (10) Fitting reed—takes 3 hours for 44 inch sari and if by hired labour rate paid is—3 annas.
- (11) Winding up on beam—a 12 sari length takes 8 hours and if by hired labour cost is—6 annas.
- (12) For weft the degummed thread is wound on pirns and if done by hired labour rate paid is $7\frac{1}{2}$ pies per lb. of degummed thread.
- (13) For thans the threads are doubled and twisted and if done by hired labour rates paid are 8 annas per lb.
- (14) Dyed threads are used in borders.

Cost of production of matka cloth.

For a 12 sari warp, each woven sari measuring 5 yds. \times 44" or a total warp of 60 yds. \times 44" with medium thread, 11 lbs. for warp and 11 lbs. for weft are required. The preparatory processes take about 7 to 8 days. The cost is as follows:—

	Rs.	A.	P.
22 lbs. thread at Rs. 4 per lb.	88	0	0
1. First winding 22 lbs. at 9 pies per lb.	1	0	6
2. Bleaching—after bleaching the weight is about 12 lbs.	0	14	0
3. Second winding 12 lbs. at $7\frac{1}{2}$ pies per lb.	0	7	6
4. Sizing expenses—			
Rice $1\frac{1}{2}$ lbs.—2 annas	}	0	2
Fuel— $\frac{1}{2}$ anna			
5. Winding in wet size, 12 lbs. at $7\frac{1}{2}$ pies per lb.	0	7	6
6. Bobbin winding—6 lbs. at $4\frac{1}{2}$ pies per lb.	0	2	3
7. Stretching warp, fitting into reed—2 men whole day	0	12	0
8. Preparing heald—1 man whole day	0	6	0
9. Piru winding for weft—1 anna per lb.	0	6	0
10. Bani for weaving at Rs. 1-8 per piece	18	0	0
11. Washing at 2 annas per piece	1	8	0
Total	112	2	3

Each piece therefore costs about 9 5 6

The piece sells in the *hât* at about Rs. 9-8 or even at Rs. 9. The weaver gets his *bani*. Dealers come to the weekly *hât* and make purchases.

Enclosure II.

Supplementary questions which arose in the course of oral evidence of Government representatives.

1. Acreage of mulberry and reconciliation with figures given before (already submitted).
2. Possible volume of production.
3. Quantity of leaf without twigs required for production of one lb. cocoons.

3A. Details of Rs. 97 stated to be the initial cost of starting an acre of mulberry (already submitted).

4. Revised figures of leaf without twigs in all statements.

5. Details of labour for mulberry cultivation for one acre with rates of labour, actual hours of work and price of manures.

6. Similar details as above for rearing.

7. Annexure V of reply to general questionnaire (yield of cocoons) worked on the basis of 110 layings (already submitted).

8. Reconciliation of yield of 28 lbs. cocoons from an ounce of seed with 45 lbs. given before.

9. Possible figures of yield when the new races are introduced.

10. Details of cost of production of seed.

11. Actual cost of production of a lb. of cocoons with reference to Annexure VI and statement in reply to question 23 (b).

12. Present position as regards seed production and supply.

13. Price of cocoons in different districts.

14. Cost of production of raw silk in the last five years with price.

15. Outturn in reeling per basin per day.

16. Percentage of reeling waste—differences to be explained.

17. The amount at present being spent by Government and for what purposes.

18. Compare costs of fuel, etc., for reeling given last time (page 151 of Tariff Board's Report) with the present costs.

19. Number of reelers under observation with number of basins.

19A. Statement on Ghora silk.

20. The expenses in Japan on the basis of a lb. of raw silk.

21. Freight rates from Japan.

22. Proportion of indigenous silk used and sold locally.

23. Cost of re-reeling.

24. Cost of preparing a lb. of yarn from raw silk and loss in weight.

25. Charges for dyeing (included in Note on weaving).

26. Manufacturing cost of 1 dozen handkerchiefs and their weight.

27. Number of weavers independent of mahajans (included in Note on weaving).

28. Number of looms in mills working with artificial silk.

29. Quantity of raw silk consumed in different centres of weaving.

30. Cost of saris.

31. Employment of weavers—what proportion work as daily wage earners) included in Note on weaving).

32. Net profits from saris.

33. Protection *versus* bounty.

34. Average acreage of mulberry per rearer.

35. Total expenditure for silk industry in Bengal.

36. Average silk content of cocoons for the whole year—Annexure I.

37. Percentage of waste spun with hand.

SUPPLEMENTARY QUESTION No. 2.

What may be maximum production in Bengal if protection is granted.

If protection to such an extent is granted that a rearer can get 6 annas per lb. of cocoons, it is expected that the acreage under mulberry

will increase to 25,000 in the course of about 5 years, when the production of cocoons is estimated to rise to about 15,000,000 lbs. and that of raw silk to about 1,000,000 lbs.

SUPPLEMENTARY QUESTIONS Nos. 3, 6 AND 11.

Regarding cost of production of a lb. of cocoons.

The census of which results are given in Annexure VI covers the period from October, 1936, to September, 1937, and does not include the almost total failure of crop in November, 1937. The annexure is based on actual census carried out during a period of fairly normal conditions.

In the statement in reply to question 23 regarding cocoons from 1 oz. of seed the cost of labour is not increased but is actual according to census while cost of leaf with twigs is at increased rate of 8 pies per lb. and taken at 30 lbs. with twigs per lb. of cocoons. As no increase is accepted until satisfactory proof is given for this increase a revised statement is given below according to actual census (Annexure VI) without any increase on lb. outturn.

	Malda.	Murshidabad.	Birbhum.
	As. p.	As. p.	As. p.
1. Cost of seed	0 1-63	0 2-35	0 2-47
2. Labour cost for rearing — feeding worms, litter cleaning, collect- ing and cutting leaves, picking up ripe worms, etc., calculated on actual hours employed—			
(i) Family	0 8-75	1 6-80	1 0-01
(ii) Hired	0 3-06	0 0-82	0 2-08
3. Quantity of leaf fed (without twigs)	13½ lbs.	18 lbs.	14½ lbs.
4. Price of leaf (own leaf calculated at census price and not at increased rate)	1 6-63	2 6-27	1 8-01
5. Disinfection labour calculated on actual hours employed—			
(i) Family	0 0-20	0 0-70	0 1-22
(ii) Hired	0 0-12	0 0-07	0 0-23
(iii) Disinfectant	0 0-21	...	0 2-74
6. Cost of appliances	0 1-76	0 2-58	0 2-53
Carried over	2 10-96	4 7-59	3 7-29

	Malda.	Murshidabad.	Birbhum.
	As. P.	As. P.	As. P.
Brought forward .	2 10-96	4 7-59	3 7-29
7. Miscellaneous labour— such as repairs of house, plucking cocoons, drying and storing cocoons and selling expenses, etc., calculated on actual hours employed—			
(i) Family . .	0 0-35	0 1-53	0 1-45
(ii) Hired . .	0 0-35	0 0-34	0 0-83
Total .	2 11-66	4 9-46	3 9-57

An ounce of seed under present conditions has not been observed to yield more than about 28 lbs. of cocoons (vide reply to supplementary question 8). This is taken in the statement below as the basis for calculating cost of production of cocoons from one ounce seed, based on the preceding statement.

Statement.	Malda.	Murshidabad.	Birbhum.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
1. Cost of seed .	0 3 9-64	0 5 5-80	0 5 9-16
2. Cost of labour .	1 15 3-20	3 3 11-28	2 9 6-96
3. Cost of food for worms . .	2 11 5-64	4 6 7-56	2 14 8-28
4. Cost of appliances	0 4 1-28	0 6 0-24	0 5 10-84
5. Other expenses (Dis- infectant) .	0 0 5-88	...	0 6 4-72
Total .	5 3 1-64	8 6 0-88	6 10 3-96

In this connection the following points require consideration:—

- (1) Quantity of leaf required for producing one lb. cocoons. The census for rearing in Malda (Annexure VI) showed 27 lbs., Murshidabad 36 lbs. and Birbhum 29 lbs. leaf with twigs fed to worms for producing one lb. cocoons. Usually there is some wastage in the form of unsuitable or too tender leaves. The amount should be taken at about 16 lbs. leaf without twigs, which is the figure taken in Japan and also in Mysore, in both of which plucked leaf is used.
- (2) Labour for rearing as will be evident from the details of rates and hours of employment submitted has been calculated only for actual hours of work at very low rates prevalent at the time due to depression which are nearly half those under normal conditions. The rates of wages and actual hours of employment are analysed of only 3 out of 20 rearers in Malda district (Annexure VI-A). Cost of production will certainly increase when wages rise. Labour should be increased by at least fifty per cent. Seed cocoons also have to be replaced by

examined eggs. Taking these facts into consideration the cost of production of a lb. of cocoons will be as follows. The price of leaf is calculated at 1·7 pies per lb. without twigs.

	Rs.	A.	P.
1. Cost of seed—4 examined layings at 1 pie each	0	0	4

	Rs.	A.
Average price of 1 <i>kahan</i> Nursery seed	1	1
Cost of examination, papers, etc.	1	0
Total	2	1

From one *kahan* of seed 400 examined layings are normally expected. Therefore price of 1 laying is about 1 pie.

2. Cost of labour—(according to Census—Annexure VI)—

	Rs.	A.	P.
Malda	0	1	1·40
Murshidabad	0	1	10·26
Birbhum	0	1	5·82
	0	4	5·48

	Rs.	A.	P.
Average for three districts	0	1	5·8
By adding 50 per cent.	0	0	8·9
	0	2	2·70

3. Cost of leaf at 16 lbs. (without twigs) per lb. of cocoons at 1·7 pies per lb. $16 \times 1·7$	0	2	3·20
4. Cost of appliances—actual census of three districts	0	0	2·28
5. Other expenses—disinfectant 21 pies as observed at Malda is taken as the average	0	0	0·21
Total	0	5	0·39

2	8	0	3	0	..	0	6	0
92	8	0	3	0	17 4 0	..		
15	4	0	3	0	1 6 6	..		
3	2	0	3	0	0 2 3	..		
2	4	0	3	0	..	0 3 0		
2	2	0	3	0	..	0 1 6		
4	8	0	3	6	0 14 0	..		
4	3	0	4	0	0 6 0	..		
67	8	0	4	0	16 12 0	..		
33	4	0	4	0	4 2 0	..		
13	2	0	4	0	0 13 0	..		
4	8	0	4	0	..	1 0 0		
16	8	0	4	6	4 8 0	..		
49	8	0	5	0	15 5 0	..		
22	4	0	5	0	3 7 0	..		
7	2	0	5	0	0 8 9	..		
Contract labour, of cost hire .						1 0 0		
					82 3 6	3 15 3		

Total labour cost for rearing during the year—Rs. 99.6.6 and outturn—940 lbs.

Labour cost for producing one lb. cocoon represents Rs. 0.1.6.46 pica.

Details of labour cost shown in the abstract census of Rearing cocoons (Annexure 6 of the replies to general questionnaire).

Name—Mahendranath Mondal, Residence—Mahadipur, District Malda.

Labour cost for rearing such as feeding worms, collecting and storing, leaf, litter clearing, picking up ripe worms, etc.					Labour cost for disinfection.					Labour cost under miscellaneous items such as repairing houses, plucking cocoons, brokerage, etc.				
No. of labourers.	Actual hour of work.	Rate per day.	Amount.		No. of men.	Actual hour of work.	Rate.	Amount.		No. of men.	Actual hour of work.	Rate.	Amount.	
			Family labour.	Hired labour.				Family labour.	Hired labour.				Family labour.	Hired labour.
10	8	Rs. 0 1 6	Rs. 0 15 0	Rs. A. P.	4	4	Rs. 0 2 0	Rs. A. P.	Rs. A. P.					Rs. A. P.
44	2	0 2 0	1 6 0	..	5	8	0 2 0	..	0 4 0					0 8 9
68	4	0 2 0	4 4 0	..	2	8	0 1 6	0 3 0	..					
39	3	0 2 0	1 13 3	..	2	4	0 3 0	0 3 0	..					
13	8	0 2 0	..	1 10 0	4	6	0 2 0	0 6 0	..					
1	4	0 2 0	..	0 1 0			..	0 12 0	0 14 0					0 8 9
5	1	0 2 0	0 1 3	..										
3	5	0 2 0	0 3 9	..										

Total labour cost for rearing during the year—Rs. 77.5.9 and outturn—714 lbs.

Total labour cost for rearing during the year—Rs. 77.5.9 and outturn—714 lbs.

SUPPLEMENTARY QUESTION No. 5.

With regard to cost of production of mulberry a revised statement is submitted worked out on one acre basis from the actual census—Revised Annexure IV.

It has to be pointed out in this connection that in this statement actual hours of work have been taken and wages calculated for them.

The labour engaged and rates taken are analysed in the case of three of them 23 cultivators in statement given below (Annexure IV-A) on maintenance of mulberry.

The period of this census was unaffected by flood and drought which unfortunately are experienced frequently, especially of late.

Proper manuring is also not given as will be seen in the statement of cost of cultivation in 13 centres by the 23 cultivators (Annexure IV-B).

If an approximate estimate of cost of cultivation based on experience of the local practices were attempted allowing for fair rates of wages, for sufficient manuring and for loss due to floods and drought, it would be as follows:—

An estimate showing the cost of cultivation of mulberry land under fairly normal condition as made out from general experience of prevailing practice.

Malda District.

	Cost per bigha.	Cost per acre.
	Rs. A.	Rs. A.
Root pruning in September	1 0	3 0
Weeding	1 0	3 0
Ploughing	0 8	1 8
1st digging with spade (October)	2 8	7 8
2nd digging in December-January	3 0	9 0
3rd digging in April	1 8	4 8
4th digging in June	1 0	3 0
1st weeding in July	1 8	4 8
2nd weeding in August	1 8	4 8
Fencing, etc.	2 8	7 8

Manuring—

The practice is to manure with cow-dung or tank-weeds in one year and with earth or silt in the next year. The cost being—

	Rs. A.	
25 cartloads of cow-dung or tank weeds at 6 annas each cartloads	9 6	
Spreading average	1 8	
	10 14	
Earth or silt spreading from surrounding ditches (labour charges)	6 2	
For two years	17 0	
Therefore for one year	8 8	25 8
Rent	1 8	4 8
Total cost	26 0	78 0

Yield of leaf with twigs . . . 75 mds. (85 mds. 10 mds. allowance for drought and flood, etc., 75 mds. 225 mds.

Yield of leaf without twigs . . . 37½ mds. or 3,000 lbs. 9,000 lbs.

Cost of leaf per lb. (without twigs) 1·66 pies or 1·7 pies.

The above shows the present conditions which will continue for some time as practically the whole of the mulberry is of bush type. Attempts are being made to find out improved high yielding mulberry and to introduce trees or such forms of trees which will be acceptable to the rearers and which will not be affected by drought. With the introduction of these measures the cost of leaf is expected to be reduced by about cent. per cent.

The average cost of production in nurseries where all labour is paid for is 3·2 pies per lb. without twigs for 1937-38.

REVISED ANNEXURE IV (REF. TO QUESTIONNAIRE 16 (iii).

Abstract census of cultivation of leaf prepared on the basis of an acre of land.

	Malda.	Murshidabad.	Birbhum.
1. Period of observation.	November 1936 to October, 1937.	1st April 1937 to 31st March, 1938.	May 1937 to March, 1938.
2. Area under observation in acres	28·26	5·5	4·9
3. Cost of labour for cultivation per acre—			
(1) Family	Rs. A. P. 1 12 10	Rs. A. P. 10 0 6	Rs. A. P. 7 4 7
(2) Hired	28 15 11	23 15 9	8 2 3
4. Cost of manuring per acre—			
(1) Price of own manure	5 4 1	13 2 0	1 15 10
(2) Price of purchased manure	4 7 11	2 14 6	2 0 8
Spreading cost per acre—			
(1) Family	0 7 6·5	1 11 6	0 4 3
(2) Hired	3 14 10	4 11 6	4 8 1·5
5. Rent per acre	3 8 4	8 12 6	7 15 1·5
6. Total cost of cultivation per acre	48 7 5·5	65 4 3	32 2 10
7. Less price of roots and sticks sold per acre	1 14 4·5	2 10 6	3 6 9
8. Net cost of cultivation per acre	46 9 1	62 9 9	28 12 1
9. Yield of leaves in lbs. without stem per acre	7,615 lbs.	9,198 lbs.	6,840 lbs.
10. Average cost of leaf per lb. without twigs	1·17	1·30	·80

ANNEXURE IV.A.

Maintenance of one acre of mulberry as determined by actual census in Malda District, October 1936 to September 1937.

	1 acre.			1 acre.			1 acre.		
	No. of labourer.	Average rate of wages per day.	Amount.	No. of labourer.	Average rate of wages per day.	Amount.	No. of labourer.	Average rate of wages per day.	Amount.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Murah cutting and removing .	..	..	1 3 0	10	0 3 2	1 15 8	..	..	1 0 0
Ploughing	1	0 8 0	0 8 0	21	0 8 0	1 0 0	21	0 8 0	0 8 0
Digging	25	0 2 10	6 3 2	25	0 2 9	4 13 0	31	0 2 6	4 13 6
Weeding	11	0 2 3	1 6 11	6	0 2 0	0 12 0	8	0 2 10	1 6 8
Cost of manure . . . . .	..	..	1 9 6	..	..	2 10 8	..	..	1 3 2
Spreading	43	0 2 1	5 9 7*	21	0 3 0	3 15 0*	7	0 2 6	1 1 6
Fencing and embankment .	16	0 2 0	2 0 0	4	0 7 8	1 12 8	3	0 2 0	0 6 0
Rent . . . . .	..	..	1 6 0	..	..	0 9 0	..	..	0 10 0
Total . . . . .	..	..	19 14 2	..	..	17 8 0	..	..	11 0 10
Sale proceed of Murahs and Sticks .	..	..	0 7 0	..	..	0 8 2	..	..	1 0 0
Net cost of cultivation per bigha .	..	..	19 7 2	..	..	16 15 10	..	..	10 0 10
									Rs. A. P. 46 7 10

* Includes application of earth.

ANNEXURE IV-B.

Census taken for ascertaining Annual expenditure in Cultivating 1 (one) acre dry land under mulberry in the District of Malda.

—	Biram- pur.	Kalia- chack.	Silam- pur.	Milki.	Bhola- hat.	Amriti.	Khopa- kathi.	Dhan- tola.	Bangal- gram.	Baro- ghoria.	Kristo- pur.	Mohidi- pur.	Jahal- pur.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Cost of cutting . . .	..	..	..	..	..	..	..	..	..	..	..	..	..
Manure . . .	6 13 3	6 0 9	12 1 0	20 4 0	18 2 3	7 13 6	15 0 0	15 8 9	13 3 17	4 9 6	12 0 23	5 9 21	4 9
Labour . . .	21 15 3	25 2 0	26 4 0	42 3 9	26 1 9	45 8 6	30 15 9	46 4 6	27 9 6	30 8 6	14 4 0	36 5 9	33 5 3
Rent . . .	4 14 0	3 12 0	2 12 6	1 11 0	3 7 6	3 0 0	3 10 9	2 15 0	3 12 0	3 12 0	3 6 0	3 14 9	4 2 0
TOTAL . . .	33 10 6	34 14 9	41 1 6	64 2 9	47 11 6	56 6 0	49 10 6	64 12 3	41 2 9	51 9 3	24 6 0	63 10 3	58 12 0
Less sale proceeds of roots per acre.	2 12 6	0 15 9	0 14 3	2 13 0	2 4 0	2 15 0	1 13 3	2 11 9	2 5 0	1 6 9	2 9 0	1 13 6	1 5 0
Net cultivation cost . . .	30 14 0	33 15 0	40 3 3	61 5 9	45 7 6	53 7 0	47 13 3	62 0 6	38 13 9	50 2 6	21 13 0	61 12 9	57 7 0
Yields without twigs per acre.	lb. 8,694	lb. 4,605	lb. 6,036	lb. 7,743	lb. 10,290	lb. 9,774	lb. 7,191	lb. 9,540	lb. 8,601	lb. 5,133	lb. 3,771	lb. 9,027	lb. 5,814

N.B.—The average cost of cultivation per acre comes to Rs. 46-8-10.

ANNEXURE IV-C.

COST OF CULTIVATION AND YIELD OF LEAVES.

On the line of Table XIX of Tariff Board's Report based on census (Annexure IV) and actual yield of trees in Hogra Nursery.

	Bush mulberry per acre.		Tree mulberry per acre (420 trees per acre).	
	Cost of cultivation including manure,	Yield of leaves without twigs.	Cost of cultivation including manure.	Yield of leaves without twigs.
	Rs.	Mds.	Rs.	Mds.
1st year	97	Nil	64	Nil
2nd year	47	75	30	Nil
3rd year	47	90	30	52½
4th year	47	95	30	65
5th year	47	95	30	80
6th to 15 year (10 years)	470	950	300	800
In 15 years	755	1,305	484	997½
	or 404,400 lbs. (without twigs)		or 79,800 lbs. (without twigs)	
Quantity of leaf per rupee—				
			Lbs.	
(1) From Bush			138	} (without twigs)
(2) „ Trees			165	
Cost of leaf per lb.—				
				Pics.
Bush				1.39
Tree				1.13

N.B.—The cost of leaf in the above case is slightly higher than which was obtained from actual census. This is accounted for by the fact that in the above case cost incurred in the 1st and 2nd years has been taken into consideration without corresponding yield. If the figures are calculated when the plants come to a fairly stable yield they will be as below:—

5th year of plantation—

Quantity of leaf per rupee from—

	Lbs.	
Bush	162	} (without twigs)
Trees	213	

Cost per lb. (without twigs) from—

	Pics	
Bush	1.18	
Tree . . . . .	.9	

In this statement the following points are emphasised:—

- (1) Cost of bush mulberry and yield of leaf from 4th year are based on actual census.
- (2) There is no tree plantation in Bengal and the trees which are grown are planted on edges of fields and road-sides.

The figures asked for for a tree plantation are worked out as approximately as possible from yields observed in nurseries.

ANNEXURE IV-D.

Number of trees in the nurseries during the year 1937-38.

	No. of trees.	Yield per tree of leaves without twigs.
In fields	22,084	10 lbs. in third year in 4 pluckings. Later on 19 lbs. from a few good trees and maximum yield in a good tree up to 25 lbs. in the 6th year.
Road-sides and embankments	4,695	

The above results are from trees grown from saplings in the nurseries. In certain areas such trees show signs of disease and decay when about 10 years or more old. Growing of trees from grafts as in Japan has recently been undertaken.

According to actual yields obtained in nurseries the following estimate of average yield can at present be depended upon from trees.

In an acre of land about 420 trees can be grown 10 ft. apart and 15 lbs. (without twigs) in the average from about the 5th year per tree can be expected . . .	Cost per lb. 9 pies per lb.(without twigs).
--	--

SUPPLEMENTARY QUESTION NOS. 8 AND 9.

Reconciliation of 48 lbs. cocoons from 140 layings with 28 lbs. given now.

Outturn of 48 or even 60 lbs. cocoons from 140 layings in careful rearing in nurseries with sufficient spacing, care, good food and examined eggs is not uncommon. Such results in nurseries apparently were supplied to the Board last time showing what could be expected. The condition of rearing by general rearers is however quite different. Ordinarily 60 kahans of cocoons in two gharas (32 trays) from one kahan seed cocoons, i.e., 500 layings or one kahan cocoons from about 8 layings or about 24 lbs. from 100 layings is considered satisfactory by general rearers. This works out to about 34 lbs. per 140 layings. But such results too are not obtained uniformly throughout the year. It is true that much better results than this are obtained in some cases which however should be considered as exceptional and not applicable to the general body of rearers.

In order to arrive at a correct idea of actual general results during 1937-38 the records of large rearings by nurseries, selected rearers and general rearers were scrutinised, omitting results of rearings up to 25 layings which always show better results. The results of scrutiny are shown below.

—	No. of rearings scrutinised.	Lbs. of cocoons from 140 layings.			Race of worm.
		Minimum case.	Maximum case.	Average for all.	
Nurseries	26	20	71	35	Nistari.
Selected rearers	9	20	56	23	Do.
General rearers	17	17	34	25	Do.
Nurseries	11	21	58	39	Chhotopolu.
General rearers	13	8	67	32	Do.
Nurseries	2	14	31	23	Barapolu.
General rearers	8	17	63	26	Do.

Nistari is the variety reared in all seasons except November when Chhotopolu is reared. Barapolu is reared in one district in spring only. These are the three worms generally reared up-till now on a large scale. The average for the year of the rearings by rearers, selected and general, is about 26 lbs. per 140 layings and can be safely be taken at 28 to 30 lbs. but not more.

A similar scrutiny of the rearings of Nistid and Niamo worms gave the following results:—

Reared by whom.	No. of rearings scrutinised.	Cocoons obtained from 140 layings in lbs.			Race of worm.
		Minimum case.	Maximum case.	Average for all.	
Nurseries . . .	19	5	106	57	Nistid.
Selected rearers . .	7	21	52	29	Do.
General rearers . .	14	15	105	62	Do.
Nurseries . . .	5	53	108	82	Niamo.
Selected rearers . .	1	..	66	..	Do.
General rearers . .	1	..	28	..	Do.

The average of Nistid which has now been issued to rearers comes to about 45 lbs. per 140 layings in the hands of rearers, general and selected.

With the introduction of the new races at least about 50 per cent. increase will be obtained.

SUPPLEMENTARY QUESTION 10.

Details of cost of production of seed cocoons.

On account of necessary selection and care in feeding seed cocoons cost more than reeling cocoons ordinarily reared by general rearers.

The amount 5 annas per oz. is obtained in the following manner from the actual cost of production in Government nurseries.

Cost of 1 kahan seed cocoons in—

	Rs.	A.	P.
Piasbari Nursery	1	1	3
Mirganj Nursery	1	0	1
Bogra Nursery	1	10	0
Kalitha Nursery	0	12	11
Berhampore Nursery	1	0	0
Total	5	8	3

Therefore the average cost 1 1 8

At 500 industrial layings per kahan cost of 140 layings comes to As. 5. This average is taken for all places.

SUPPLEMENTARY QUESTION 12.

Seed production and supply.

The policy of seed production and supply has been practically as before, that is, seed cocoons raised from cellular seed (examined eggs) is supplied to general rearers. The nurseries maintain and raise seed cocoons, the cellular eggs from which are supplied to selected rearers who raise seed cocoons for general rearers. The nurseries too supply when available seed cocoons to general rearers. In all cases a test examination of the seed cocoons meant for general rearers is carried out before the seed cocoons are permitted to be sold by nurseries or selected rearers.

Uptil December 1933, there were 12 nurseries and a total of 172 selected rearers including ex-students. The retrenchment given effect to from the beginning of 1934 reduced the numbers of nurseries to 7 and supply of cellular seed to selected rearers became difficult owing to paucity of staff and funds. Funds however were made available by the Government of India's grant to enable improvement of this condition.

The number of nurseries remained the same, i.e., seven. With the Government of India's help ten centres for seed examinations were opened in the interior in different places among the rearers themselves, viz., 5 in Malda district, 3 in Murshidabad district and 2 in Birbhum district and 42 demonstrators, viz., 20 in Malda district, 12 in Murshidabad district and 10 in Birbhum district, were placed in villages among the rearers, each in charge of a group of rearers within a radius of about 5 miles of his headquarters.

The Inspecting staff was also increased. The number of selected rearers was increased from 187 in 1934-35 to 426 in 1937-38 by the grant of subsidies of Rs. 50 to Rs. 100 to each to enable improvement of their rearing houses.

The posting of demonstrators among the rearers enabled proper observation of the rearings of selected rearers as well as guidance of the general rearers in improved methods, a prompt attention to outbreak of diseases and carrying out of regular census and collection of statistics. Within the last few years muscardino which used to cause heavy loss to rearers has practically disappeared.

A census was carried out in 1937-38 with the help of the above staff as to actual use by rearers of examined and unexamined seed. This census brought to light the fact that there is still a large body of rearers who stick to the opinion that worms reared in an uncleaned for state in the villagers' house are stronger than those which are reared with care and in clean white washed houses in nurseries and selected rearers' houses. On this ground they prefer village seed cocoons to nursery and selected rearers' seed cocoons. It is also found that a large number go in for any cheap seed they find owing to the depressed condition and uncertain prices and necessarily take village seed. In order to accommodate them ten microscopic examiners have been added to the staff recently who will examine the village seed used by such rearers.

A proposal is under consideration to bring all seed rearers in the province under departmental control as has been done in Mysore by giving them cellular seed (eggs) free of cost and making them always rear from cellular seed. In this way their houses will be freed of disease germs and the seed cocoons reared by them from cellular seed are expected to improve the conditions regarding disease vastly. Issue of cellular seed to general rearers with the help of trained granieurs is also contemplated.

The statements below show the utilisation of the Government of India's help and the position as regards production and supply of seed.

Seed production with the help of India Government grant from October, 1935 to end of 1937-38.

	1935-36.	1936-37.	1937-38.	1938-39.
SCHEME No. I.				
Production of disease-free seeds—				
(1) Quantity of seed cocoons raised in kahans . . .	32,636	48,260	57,945	..
(2) Quantity sold as seed in kahans . . .	24,308	18,482	20,860	..
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs.
EXPENDITURE.				
Total Sanctioned Grant .	34,600 0 0	38,024 0 0	40,364 0 0	40,814
Details of expenditure—				
(1) Pay of staff .	6,538 5 0	17,437 13 0	17,715 10 0	..
(2) T. A. of staff .	1,200 0 0	2,681 12 0	2,899 11 0	..
(3) Contingent expenses . . .	20,316 14 9	17,394 2 0	16,886 8 9	..
SCHEME No. II.				
Research Scheme—				
Total Sanctioned Grant .	Nil	Nil	5,100 0 0	9,140
Details of expenditure—				
(1) Pay of staff .	Nil	Nil	2,093 6 0	..
(2) T. A. of staff .	Nil	Nil	458 0 0	..
(3) Contingent expenses . . .	Nil	Nil	2,099 14 10	—
Total expenditure .	34,055 3 9	37,513 11 0	42,153 2 7	..

Position as regards actual total supply including Government of India scheme of disease-free seed cocoons.

Year.	Nurseries consumed in kahans.	Government of India scheme in kahan.	Total in kahan.	Estimated seeds requirements based on acreage of about 10,000.	Percentage of disease-free seed supplied out of total requirement.
				Kahans.	Per cent.
1934-35 . .	12,463	17,507	29,970	50,000	60
1935-36 . .	11,948	24,308	36,256	50,000	73
1936-37 . .	10,327	18,482	28,809	50,000	58
1937-38 . .	10,766	20,860	31,626	50,000	63
<i>Position in a year when acreage was 17,500.</i>					
1929-30 . .	18,127	21,570	39,697	88,000	45
Statement before last Tariff Board				.	50

N.B.— The fluctuations in the amount of production and supply of seed cocoons are accounted for by the fact that in 1936 unusual floods submerged the mulberry lands especially in Malda and the largest crop (Bhaduri, i.e., August-September) of cocoons of the year could not be reared. Consequently there was no demand for seed at the time.

In 1937 again more or less similar conditions prevailed and in addition there was a long period of drought which affected the bush mulberry with consequently less demand for seed.



सत्यमेव जयते

ANNEXURE VII.

SUPPLEMENTARY QUESTION No. 15.

Item 20.

Outturn per charkha in 10 hours (varies with quality of silk produced).

District.	Quality of silk.	Size.	Outturn in lb. in 10 hours.	Remarks.
			1 lb.	
Malda . . .	Tana . . .	20/24 denier	1.19	A rough rope like silk very uneven and with a lot of dirt in it.
	Bharna . . .	30/32 "	1.62	
	Ghora . . .	..	3.37	
Birbhum . . .	Bharna . . .	30/35 denier	.87	
	Tana (steans) . . .	17/20 "	.62	

SUPPLEMENTARY QUESTION No. 16.

An explanation regarding discrepancy in the percentage of waste shown under reply to question 25 (iv) and under Annexure VII (Abstract census of reeling—reference to question 29).

Proportion of silk and waste (under reply to question 25 (iv)) is:—

	Per cent.
Silk	59
Waste	41

If the proportion is calculated on the same basis in Annexure VII it comes to—

	Per cent.
Tana—	
Silk	49.2
Waste	50.8
Bharna—	
Silk	62.7
Waste	37.3
Ghora—	
Silk	100
Waste . . . . .	...

SUPPLEMENTARY QUESTION NOS. 17 AND 35.

	Rs.
A. I. Budget grant for the year 1938-39 for Reeling Demonstration	9,680
II. Budget grant for the year 1938-39 for Silk Conditioning House, Howrah	3,442
III. Budget grant for the year 1938-39 for Peddie Silk Reeling Institute, Malda	5,068
IV. Sericultural Department budget for the year 1938-39 for maintenance of Government Nurseries, seed-production and propaganda work and supervision of the whole Department—	
	Rs.
(a) Pay of officers	26,500
(b) Pay of establishment	46,707
(c) Travelling allowances	10,202
(d) House rent and other allowances	20
(e) Contribution and grants	500
(f) Contingencies	52,223
	<hr/> 1,36,152
Grand total	1,54,342
For rounding	<hr/> - 142
Net budget	<hr/> 1,54,200
B. Budget grant for Sericultural Development under India Government Scheme for the year 1938-39.	
I. For disease-free seed production	40,814
II. For research work	9,140
Total	<hr/> 49,954
For rounding	<hr/> + 46
Net budget grant	<hr/> 50,000
C. I. Recurring Budget for existing Silk Weaving and Dyeing Institute, Berhampore, for the year 1938-39	19,500
II. Additional recurring budget for 8 months of the Re-organised Silk Technical Institute, Berhampore	14,500
III. Non-recurring budget for the re-organised Silk Technical Institute	46,500
Total	<hr/> 80,500
D. Budget grant for the year 1938-39 for Weaving Demonstration Parties	16,000

SUPPLEMENTARY QUESTION NOS. 13 AND 19.

Cost of reeling 1 lb. of raw silk on a charkha as determined by census.

	Malda.			Murshidabad.	Birbhum.	
	Tana.	Varna.	Ghora.		Khamru.	Filature.
Wages of reeler	Rs. A. P. 0 6 6	Rs. A. P. 0 4 6	Rs. A. P. 0 5 6	Rs. A. P. 0 3 0	Rs. A. P. 0 4 3	Rs. A. P. 0 3 6
Wages of turner	0 4 9	0 3 6	0 3 6	0 2 6	0 2 3	0 1 6
Readita	18-35	14-2	19-5	15	12-8	18-4
Price of cocoons : annas per pound	0 4 1	0 4 1	0 4 1	0 4 8	0 5 2	0 2 8
Cocoons	4 12 4	3 12 10	2 5 5-6	4 6 11	4 3 1-6	3 6 2-5
Fuel and water	0 6 9	0 2 3-5	0 1 4	0 4 3-5	0 2 5	0 4 8-5
Labour	0 9 5	0 5 5-5	0 2 4	0 6 7	0 7 5-5	0 7 5-5
Supervision	Nil	Nil	Nil	Nil	Nil	Nil
Repairs	0 0 3-8	0 0 0-8	0 0 0-7	0 1 6-5	0 0 7	Not available.
Miscellaneous	0 2 4	0 1 1	0 0 6-7	0 2 5	0 0 5-9	0 0 4-5
Total	5 15 1-8	4 5 8-8	2 9 9	5 5 9	4 14 1	4 2 9

Cost of reeling 1 lb. of raw silk on a charkha as determined by census—contd.

	Malda.			Murshidabad.	Birbhum.	
	Tana.	Varna.	Ghora.		Khamru.	Filature.
	Rs. A. P.	Rs. A. P.	Rs. A. P.		Rs. A. P.	Rs. A. P.
Total Brought forward	..	..	..	..	..	..
Deduct value of waste	0 4 1·8	0 2 4·8	Nil	0 3 7	0 1 7	0 2 9
Net works cost	5 11 0	4 3 4	2 9 9	5 2 2	4 12 6	4 0 0
Reeling charges (above cost of cocoons) per pound of silk.	1 3 9·8	0 8 10·8	0 4 3·4	0 14 10	0 10 11·4	0 12 6·5
Cost of cocoons	80	87	90	83	86	81
Cost of reeling	20	13	10	17	14	19
Proportion of waste of total raw silk and waste.	50·8	37·3	..	35·2	26·2	45·2
No. of basins working	..	24	..	7	2	40
No. of reellers under observation	..	5	..	3	2	2

N.B.—Commission etc., selling expenses have not been taken into consideration. Cocoons reeled are Nistari and Chhotopolu.

SUPPLEMENTARY QUESTION 19A.—*A statement on ghora reeling.*

A reeler of Malda who reeled Ghora, Bharna and Tana derived profit as shown below (based on actual consus taken).

Quality	Cost per lb. less price of waste.	Sale price per lb.	Profit per lb.
	Rs. A. P.	Rs. A. P.	As. P.
Ghora . . .	2 9 7	3 3 10½	10 3½
Bharna . . .	3 10 3½	3 14 1½	3 10
Tana . . .	5 11 8	5 14 5½	2 9½

The above differences in profit are not of course always applicable because whether Tana, Bharna or Ghora will be reeled depends primarily on their demand and the price offered. In one season between July and October, 1936, it so happened that profits from ghora were so attractive that the majority of the reelers took to reeling ghora. Ghora has also this advantage that it can be reeled from very poor and necessarily less costly cocoons. But the demand for ghora is always very limited compared with that of Tana and Bharna.

SUPPLEMENTARY QUESTION No. 20.—*Expenses in Japan on pound basis.*

Exact figures of expenditure are not available, nor such figures of recent years.

	Yen.
The figures given at page 8 of the Silk Industry of Japan represented normal permanent expenditure about the year 1927-28	10,970,000
Expenditure on Sericultural education in schools and four universities is not included in the above and may be taken at about	250,000

The above does not include occasional grants which are known, for instance:—

Grant for investigation of damage by frost (1929)	36,000
Grant for economics of reeling (1929)	41,000
Grant for reeling technique (1929)	100,000
Grant for sericultural laws	1,000
Grant for raw silk testing (1929)	27,500
Grant for storing cocoons (1928)	26,000
Subsidy for replanting mulberry	611,000
Loss borne by Government in saving the reeling industry	90,000,000
The Act authorises Government to incur expenditure for making the raw silk stabilisation law effective up to	70,000,000
Subsidy for opening new markets for raw silk (1938)	500,000
Grant for finding out new uses for raw silk (1938)	25,000

Occasional loans at low rates of interest for instance loan of 8,330,000 in 1927 to relieve frost damage and 50,000,000 in 1928 on account of low price of cocoons have also to be considered.

As regards production the figures published by the International Institute of Agriculture, Rome give 882 million lbs. fresh cocoons in 1930 in Japan. According to the Japanese Textile Journal the present production is somewhere about 70 per cent. of 1930 production and may be taken

at about 700 million lbs. fresh cocoons. Raw silk may be taken at ten per cent. of this figure on a liberal estimate or 70 million lbs.

It will, however, be evident that it is rather difficult to arrive at an estimate on lb. basis for total expenditure.

SUPPLEMENTARY QUESTION No. 21.—Freights from Japan.

In the Indian Textile Journal, March, 1937, page 218, the freight from Japan is stated to be 16 Yen per ton which at Rs. 77 for 100 Yen works out to about 1 pie per lb.

SUPPLEMENTARY QUESTIONS No. 22 AND 29.—Proportion of Imported Silk and Bengal Silk consumed in Bengal.

	Hand looms.				
	Bengal silk.	Imported silk.	Total.	% Bengal silk.	% Imported silk.
	lb.	lb.	lb.		
Vishnupur . . .	6,400	17,600	24,000	...	...
Mirzapore . . .	...	26,000	26,000	...	...
Panchgachia . . .	...	2,112	2,112	...	...
Bogra	1,057	...	1,057	...	...
Baswa	48,000	...	48,000	...	...
Shibganj	6,500	...	6,500	...	...
In other centres & Murshidabad	28,331	...	28,331	...	...
	<u>90,288</u>	<u>45,712</u>	<u>136,000</u>	<u>68</u>	<u>34</u>

SUPPLEMENTARY QUESTION No. 23.—Re-reeling and cost.

It is necessary to explain the position with regard to the discussion about re-reeling and its cost.

Weavers re-wind the large hanks of raw silk which they get into smaller hanks even if the original hanks are re-reeled. In re-winding the country charka tana and bharna silks lose about 1/16th in weight. As will be evident from the detailed note on weaving processes in different places the charges paid for re-winding are 5 annas to 8 annas per lb. The loss in weight is borne by the weaver. Japanese or Chinese re-reeled hanks rewind better causing less loss. This is expressed by saying that charka silks are defective in winding qualities compared with imported re-reeled silk.

In Haji Moniruddin's Reeling Factory at Jangipore where he has arrangements for working about 80 re-reels, if all the re-reels are worked the re-reeling cost is reported by him to amount to 6 annas per lb. The silk which is to be re-reeled has got to be reeled better suffering in yield to the extent of about 1/16th of that reeled for direct sale and not for re-reeling. In re-reeling again there is a loss of about 2/5th oz. Therefore in every lb. of re-reeled silk loss of about 2-2/5th ozs. have to be accounted for and borne by the reeler who cannot sell re-reeled silk at less than about Rs. 6-8 per lb. if ordinary unre-reeled silk sells at Rs. 5-12 per lb. the present price of tana silk reeled on steam basins.

In the Peddie Reeling Institute re-reeling is being adopted as a part of reeling on Japanese model. Introduction of this process among reelers is the ultimate aim.

SUPPLEMENTARY QUESTION No. 24.

Cost of preparing a lb. of yarn and loss in degumming.

(1) Loss in degumming is due to two factors (1) inherent proportion of sericin in the filament, i.e., some varieties having more gum than others

and (2) defective reeling. Unless the reeling is done with sufficient *croisure* a good deal of dirt sticks to the filament not being wrung out due to absence of effective *croisure*. Experienced weavers state that formerly from a lb. of good steam basin raw silk about 12 ounces degummed silk was obtained. But at present about 10½ to 11½ ounces are obtained. One Mahajan at Berhampore accepts 10½ ounces as the general rate from each lb. of raw silk issued to his weavers, of course free of all gum and starch. Recently a proper *croisure* stand was introduced among reelers in Malda district. The raw silk produced was admitted by all to be better than that produced in ordinary way but there was loss in weight to the extent of four ounces in every five lbs. of raw silk. As a higher price was not obtained for this better silk the *croisure* stand was not accepted.

(2) In up-to-date methods for preparation of yarn for organize and tram the raw silk is rewound, twisted individually, doubled two to about seven filaments together and then twisted in the reverse direction. In the case of crepe yarn several untwisted filaments are twisted together. These processes are known as throwing and the processed thread is technically described as yarn, which is then degummed.

As will be evident from the note on weaving submitted different methods are followed in different districts according to quality of production and the cost of processes for a lb. of degummed yarn is as follows:—

	Rs. A. P.
At Sibganj—	
First winding	0 5 0
Doubling and twisting	0 10 0
Bleaching done by weaver himself—cost of materials	0 1 0
	<hr/>
Product about 11½ oz.	1 0 0
At Sonamukhi—	
Bleaching per lb.	0 3 0
Rewinding the bleached thread	0 5 0
Doubling	0 4 0
Sizing done by weaver—cost of materials	0 0 3
Rewinding after sizing	0 2 6
Twisting	0 14 0
	<hr/>
Product about 1 lb.	1 12 9
At Berhampore—	
Rewinding	0 8 0
Twisting	2 0 0
Bleaching materials—labour own	0 1 6
	<hr/>
Product 11½ oz.	2 9 6
At Mirzapore—	
Rewinding	0 6 0
Twisting	0 12 0
Bleaching materials—labour own	0 2 0
	<hr/>
Product 11½ oz.	1 4 0

At Berhampore Weaving Institute—

	Rs.	A.	P.
Rewinding	0	8	0
Twisting	2	0	0
Bleaching	0	3	0
	<hr/>		
	2	11	0
Product	11½ oz.		

SUPPLEMENTARY QUESTION No. 26.—*Cost of production of one dozen handkerchiefs 18"×18" and weight of one dozen.*

With twisted yarn such handkerchiefs are usually plain white occasionally with a thin woven border:—

	Rs.	A.
12 oz. raw silk at Rs. 6 per lb.	4	8
Bani for weaving including preparatory charges at 2 annas each	1	8
	<hr/>	
	6	0

The weight of a dozen will be about 8·6 oz. in finished condition.

Woven with raw silk (details given at page 21 of the note on weaving). These are generally printed:—

	Rs.	A.
Cost of one dozen with double thread in the warp including printing	5	12
Weight will be about 6·4 oz. in finished condition.		
Cost of one dozen with single thread in the warp including printing charges	4	15
Weight will be about 4·7 oz. in finished condition.		

SUPPLEMENTARY QUESTION No. 28.—*Looms working artificial silk in mills in Bengal.*

There are five mills. The details of four are given below. The fifth one Coowar Silk Mill, Tollygunge, did not supply any information. It had about 150 looms and was working on raw silk about a year and a half ago:—

No. of looms working on.

Name of Mill.	Raw silk.	Spun and raw silk mixed.	Cotton and artificial silk mixed.	Artificial silk.
1. Bongal Silk Mills, Ulradanga	21	12	39	13
2. Calcutta Silk Mills, Lilooah . . . . .	...	18	...	...
3. Calcutta Silk Manufacturing Co., Barrackpore Trunk Road . . . . .	...	...	...	200
4. Swadeshi Industries, Ltd., Barrackpore Trunk Road . . . . .	...	...	...	124
	<hr/>			
Total	21	30	39	337
	<hr/>			

SUPPLEMENTARY QUESTION No. 30.—Cost of a silk Sari.

Fashion is changing as regards the size of saris. The old size was 5 yds. x 44 inches. Then it changed to 5½ yds. x 45 inches and now the size desired is 5½ yds. x 46 inches. In the case of printed saris the custom is to have a house piece with it measuring one yard and the size woven for such pieces is 6½ yds. in length.

The cost of production varies as has been explained in detail in the note on weaving according to (1) texture and weaving with twisted yarn or raw silk, (2) width of border, (3) plain border or border with designs and complications and extent of designs, (4) quality and extent of designs in the case of printed saris.

Saris woven with twisted yarn.

The Sihganj Sari the production of which is detailed in the note on weaving is plain and ordinary with not very good quality of border. The cost has come up to Rs. 4-11-6 each with the dyeing of the border costing only 9 pies and with good dyeing at least 6 annas has to be added to the cost of each sari.

The cost of each Sonamukhi Sari detailed in the note has come upto Rs. 9-12 with ordinary borders. The bani calculated for each sari is Rs. 2-8 but it ranges from Rs. 5 to Rs. 8 if with designed border and according to complications of designs and this amount has to be added to the cost of each piece.

The cost of the Berhampore Sari detailed in the note is Rs. 11-9-8 with Rs. 2-12 paid as bani for each and with ordinary border. The cost will increase in the same way as for the Sonamukhi or Vishnupur Sari if with designed border.

The Mirzapore dhoti detailed in the note costs Rs. 6-6-10 and with a broad border for sari will cost about Rs. 6-12. It is a cheap ordinary type.

Saris woven with raw silk (Kora) and printed.

Sari piece with blouse (6½ yds. x 45 inches) as detailed on page 21. of the note in raw state costs Rs. 4 if woven with single thread warp or Rs. 5-4-6 if woven with double thread warp. Dyeing and printing each costs Rs. 2-8 to Rs. 5-8 according to design and this amount has to be added.

SUPPLEMENTARY QUESTION No. 32.—Net profit from saris.

At present as far as enquiries go the mahujans make about 6½ per cent. on the cost of production in wholesale sales. The retail sellers can make about 12½ per cent. generally. There are apparently cases where mere profits are made but that cannot be considered as general. A reference is invited to the note on weaving.

SUPPLEMENTARY QUESTION No. 33.—Protection vs. bounty—Importance of Sericulture in Bengal.

Sericulture is one of the best rural industries under present conditions in Bengal and very well suited to the poor peasants. Rearing is a side industry for them and reeling gives employment to small and large capitalist and host of others including day labourers. In addition to those who are directly employed in silkworm rearing and reeling, many others find work or employment indirectly, for instance mulberry growers; labourers in mulberry cultivation, in harvesting of leaves, in rearing of worms and in picking of ripe worms, collectors and carters of tank weeds (*Bhode*) in Malda district for use as manure for mulberry lands; makers of feeding and spinning trays, of baskets and *chiks* (blinds) for doors and windows against the fly-pest; hirers of these appliances; makers of thread-nets; builders of rearing houses; *putikars* or dealers in seed cocoons, cocoons, pierced cocoons, raw silk and waste silk; carpenters and blacksmiths in making reeling

machines; potters in making reeling basins; masons in making reeling ovens; sellers of old mango trees, especially in Malda district for use as fuel in reeling and splitters and carters of this fuel.

An important side industry in Bengal, dependent entirely on silkworm rearing is the spinning of matka thread from pierced cocoons by women folk in their leisure hours about 13,000 being at present employed in this work.

The periods when the silkworm rearing and reeling industries flourished are remembered as those of affluence and plenty among the rural population of the silkworm rearing districts. An approximate estimate is that about two crore rupees used to come into the districts every year and remained there with the consequence that hardly any body was in want and everybody enjoyed a good credit. Ordinary peasants could easily get credits upto several hundred rupees. With the decadence of the industry even men with landed property do not enjoy the same credit at present. Money has become scarce and these districts are sunk in poverty. Sericulture enriched the rural areas. This has been the experience in all countries where sericulture existed. Therefore attempts have at one time or another been made in all countries to introduce and foster Sericulture. It has however flourished only in those countries where the peasantry is poor and where there is hardly any other remunerative occupation in the rural areas as in Bengal.

The peasantry especially where the holdings are small needs subsidiary occupations. Silkworm rearing where possible is the best of occupations suitable for such peasants. It gives occupation to all members of the family and as the work is carried on in between other work and partly in spare unoccupied hours the cocoon-producers can afford to sell cocoons at rates which would be impossible if all labour involved were paid for. This forms the solid foundation for the industry. The remuneration however in cocoon raising is small and only a small difference in price makes this remuneration attractive or unattractive. By the description of the silkworm rearing industry as a subsidiary one it should not be supposed that it can be easily given up. It becomes an indispensable item in the family budget and its presence or absence means solvency or insolvency, rather affluence or poverty. In areas where the multivoltine worms are reared as in Bengal, Mysore and Assam the industry fetches ready cash four or five times in the year, a boon the importance of which is only realised when this income stops. The multivoltine nature of the worms in Bengal has given rise to a large body of rearers whose main and only occupation is rearing of worms and they are very efficient in this work. This is the case in South China too. Sericulture means a good deal for rural areas. This is why Governments in silkworm rearing countries spend money on maintaining and fostering it and without aid from the State it cannot flourish especially as the majority of those directly concerned in it are poor. Governments help or subsidise it so as to make the remuneration from it attractive with the consequence that men are attracted to it from unproductive agricultural labour and in the natural course much unemployed labour finds occupation in it.

At one time in Bengal sericulture used to be practised in 16 districts but is at present virtually confined to three only. In most of the districts where it has ceased to exist the tradition is still present and the industry can be easily revived if cocoon-rearing and reeling can be made remunerative. Bengal's capacity to produce silk is well known which at one time exported about 1,200,000 lbs. raw silk in addition to meeting the internal demand for weaving.

Development in Japan.

How the State helps the industry in different countries has been detailed in the separate note on instances of the way help is rendered to this industry. Japan has been the foremost in this respect in organising and applying the resources of science to the development of all phases of the

industry, in developing co-operative effort in all its phases, in starting large reeling and spinning mills entirely at Government expense as demonstration to the people, in developing markets for the products, in creating facilities for marketing and in actual marketing. The result was that the sericultural industry considered and treated as a subsidiary one in other countries was raised in Japan to the status of a national one accounting not very long ago for about 40 per cent. of her total exports. Japan is so well equipped and so much advanced as to be considered a giant in this industry and her Government, as will be evident from the instances given in the other note of the various directions in which help has been and is being rendered, is sparing no effort to maintain the industry even at considerable loss.

The other countries in which Sericulture exists and where the industry is not less important to their rural population and has possibilities clearly demonstrated by Japan, have got to make considerable efforts in order to be able to keep the industry alive in the struggle with Japan which, now that China has been crippled, is the foremost-competitor everywhere.

Dumping.

It is necessary to visualise the situation in its proper perspective in order to be able to arrive at a correct decision at the present moment about the need for protection and about the merits and demerits of protection and bounty.

Japan has organised sericulture on a national scale and a large number of her people are engaged in it. Although this industry is receding from the position it came to occupy at one time owing to rise of other industries it is still of very great importance to her. Therefore Government has got to maintain it at any cost and when the products of sericulture cannot be disposed of as was the case after the Wall Street crash in 1929, Government is compelled to buy them in order to keep the industry going. Japan was very wise in this respect otherwise her reeling industry would have been crippled. Without help of this nature the reeling industry in Bengal was practically ruined, leading to rapid decline of rearing. The Japanese Government has thus a large stock of raw silk in hand and unless it decides to throw the stocks thus purchased into the Sea there is no other alternative but to find a market for them and realise as much as possible from their sale under the present conditions. No question of cost of production or economic price comes in in this transaction. Economic laws do not have their natural course. It is virtually a case of a Government maintaining an organisation for the employment of the people. This explains why Japan is forced to resort to dumping in India and other markets, otherwise production has to be curtailed. This she is apparently unwilling to do in the interest of her rural population and is ready to incur loss to keep the industry alive. China is also forced to do the same.

How dumping is being carried on is clearly proved by the history of the custody silk briefly described below.

Dumping has been resorted to after the onset of the present depression and its effect is indicated by a rapid fall in mulberry acreage in Bengal from about 18,000 in 1926-27 to about 10,000 in 1937.

The Custody Silk in Japan.

1929-30.—112,000 bales taken into custody by Japan Government paying 1,250 Yen per bale in order to save the reeling industry when sale in America stopped owing to the crisis in Wall Street.

1932.—Sale of balance in stock, viz., 107,850 bales at 455 Yen per bale at a loss of about nine crore Yen was arranged. But 98,310 bales had to be taken back into custody.

1934.—1,338 bales for which Yen 1,672,500 had been paid were distributed free of charge for experimental manufacture of new textiles.

1935.—13,600 bales exported to British India at Yen 406 per bale. Exchange at that time being Rs. 77 for 100 Yen, the price per lb. was about Rs. 2-5. This silk had been paid for at 1,250 Yen per bale. At exchange rate of Rs. 137 per 100 Yen the purchase price was about Rs. 12-14 per lb. The average export price of Japanese silk at that time in America and Europe was about 700 Yen per bale. This transaction practically cut out China from the Indian market.

1936-37.—16,700 bales exported to India. Owing to rise in the spot price at Yokohama up to 952 Yen per bale the price of this silk in India was also raised and this is why Japanese silk sold at higher prices in India up to about February, 1938, bringing about a rise in the price of Bengal silk too. This encouraged the rearers and reelers in Bengal but there was a disastrous fall in prices again causing Bengal silk to sell at even Rs. 3 per lb. this year in some places, though for a short period of about two months about July, 1937.

When the spot prices in Yokohama are compared with the declared values and prices at which Japanese silk sold at Bombay it will be evident how dumping went on.

Year.	Average spot price per lb. at Yokohama.	Approximate price at which it could be sold in India with duty.	Average declared value in Bombay.	Actual price in Bombay (yellow and white silk).
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1935 . .	4 7 3	6 13 0	2 8 0 (1935-36)	3 14 0 to 5 12 0
1936 . .	4 4 2	6 9 0	3 6 0 (1936-37)	4 13 0 to 6 15 0
1937 . .	4 10 9	7 1 0	4 1 2 (1937-38)	5 8 0 to 6 14 0

The average declared value of imported silk was—

Rs. 3-9-7 in January, 1938
Rs. 4-4-5 in February, 1938 . .
Rs. 2-15-7 in March, 1938 . .
Rs. 2-12-11 in April, 1938 . .
Rs. 3-1-0 in May, 1938 . .

} The works cost in Japan at this time was more than Rs. 5.

Apparently a further lot of the custody silk cargo into India.

In the estimates for 1938 Japan is said to have provided 500,000 Yen towards subsidy for opening new markets and finding out new uses for raw silk and 25,000 Yen for management of the raw silk Government takes into custody.

The Japan Government decided in 1937 to dispose of 7,500 bales of custody silk with the following concessions, viz., (1) if for the new methods of utilisation the price was to be reduced by 25 per cent. of average quotation of raw silk during 3 to 20 days before delivery.

(2) A further reduction of 10 per cent. was to be made if the raw silk was damaged.

(3) A further reduction of 20 per cent. was to be made to suit conditions in new markets.

According to the raw silk price stabilisation plan adopted by Japan further lots are likely to come into the custody of Government and there is no knowing when the causes which lead Japan to resort to dumping are likely to end.

Bounty vs. Protection.

It is contended that no country ever imposed tariff to protect the raw silk industry but gave it bounties. The countries which resorted to bounty are France, Ottoman Empire, Austria (in the provinces which are now included in Italy) and Spain. These countries required more raw silk for their weaving industries than they could ever expect to be able to produce. They could not resort to Tariff protection. While India's capability and resources for producing raw silk are a matter of history, though unfortunately the glory of this history is in the past but might have been in the present even now if similar attempts as in Japan had been made to develop the industry. Besides as regards alternative employment for the people the conditions in industrially advanced France are different from those in Bengal or India. No country was ever confronted with the situation which we are considering just now and in which precedents offer no guidance. The conditions at present are quite different from those under which bounties in France and other countries were adopted. Principally on account of the peculiar position of Japan described above and her readiness to undertake any amount of monetary responsibility, even loss, to maintain the industry. Now that the Governments both in British India and the States have woken up to the necessity of reorganising the industry on up-to-date lines and are actively organising measures for this purpose what would the policy of bounty alone mean without tariff protection? If the silk has to sell in India at competitive prices with Japan it will mean making up by the Government the difference between the economic and remunerative cost of production in India and the price at which Japan sells the silk here. Government will lose revenue which can be derived from tariff and at the same time incur loss in paying bounty. It will mean a rate war and the bounty-fed indigenous product may not succeed in it. Bounty is likely to be paid grudgingly and will have a tendency to be fixed with reference to prices of the imported stuff. This will hardly afford help or stimulus. Protection will therefore be needed in order to enable the bounty to have any effect.

France resorted to bounty more systematically than any other country. The result however was not as satisfactory as desired. Japan never paid bounty on production but spent lavishly on research and experiment in improving cocoons, mulberry and reeling methods and machinery and providing marketing facilities and gave and still gives help when mulberry is damaged by frost, disease or old age and when prices of cocoons and raw silk fall below the economic level. This kind of help to the industry is quite different from bounty and far more helpful and stimulative.

The most important question to be considered in the case of bounty is the source from which it will be paid. The industries being provincial concern naturally the provinces will be expected to meet the cost. This is hardly possible under the present conditions. The question will be put off till better days which may or may not come for a long time and the fate of the industry may be taken to be practically doomed. One province or State may be in a position to give bounty while others not and there may be differences in the rates paid by different Governments and States according to their capacity. There are difficulties in administering the bounty unless special organisations are created and set up. Bounties like tariff will have to include cocoons, raw silk, silk yarn, silk fabrics, etc. Bounties for cocoons and raw silk only will not meet the case. Silk which is dumped into India will be converted into fabrics and dumped. Reeling factories in Japan are already getting fabrics woven and exporting them. For paying bounties on cocoons there is at present no reliable agency. Reeling concerns get cocoons in different ways—(1) Paikars or brokers go about purchasing cocoons from rearers in the villages on behalf of reeling concerns. This used to be the practice in the prosperous days of reeling and still continues, (2) Paikars do business on their own account purchasing cocoons and selling them to reeling concerns, (3) some reeling concerns get cocoons direct from the rearers often on credit. The bounty for cocoons

may not reach the rearers of cocoons and even if it reaches them probably it will do so never in full. The bounty system may work if an organisation for buying, drying and storing cocoons is set up of the type of co-operative cocoon drying, storing and sale Society described at page 108 of the *Silk Industry of Japan*. The practice in such societies is to pay for cocoons according to reeling quality after actual reeling tests of samples of each lot of cocoons.

For paying the bounty on raw silk too there is no reliable agency. At present most of the reelers reel raw silk on order from *mahajans* who are the exporters and who frequently advance money for purchase of cocoons. The bounty can be paid only through the *mahajans* on the records of their purchase. There is room for abuse here. There are some small reelers who work only a few basins and who sell their produce direct to weavers. In their case there is no agency which can be used for payment of the bounty. One large reeling concern is itself an exporter. Bounty has to be paid on the records of its produce or on actual stock of raw silk. There is room for abuse here too.

An attempt is being made to work up a system in which the Conditioning House will be a liaison between the customers and reelers, and will certify the supply which has to be made through the Conditioning House. Bounty can be paid satisfactorily in this method and if the bounty be graded according to quality this will lead to improvement in quality of the raw silk. Some sort of bonus on quality seems desirable for improvement of the quality of raw silk apart from this question of bounty. No definite proposals have however been submitted to Government yet. If bounty is adopted and has got to be paid on the entire produce some agency requires to be set up to buy up the produce and pay bounty on quality after tests in the Conditioning House. Payment of bounty on basins or the number of ends reeled in a basin is not satisfactory. The bounty should be determined on the basis of efficiency which in this case especially means quality.

As regards bounty on fabrics at present there is no agency through which it can be paid. Practically the whole of the silk weaving is done on hand-loom some of which are fitted with fly shuttle or Jacquard. The weaving is a home industry. Some weavers work under *mahajans* who take and market the finished products. Some work on their own account and sell their products to local *mahajans* or to retail sellers in Calcutta and other towns.

A good portion of the products is hawked about and sold. The reorganised Silk Technological Institute proposes to work in co-operation with guilds of weavers intended to be formed and to certify products for the market thus forming a liaison between producers and customers. When this system comes into working order the bounty may be paid through it. It will, however, take some time to get this system into order.

Artificial silk is woven on hand-loom but a greater proportion in power factories. The case is more complicated as the whole of the raw material is imported. Rayon has now definitely come to occupy a position in the textile world as a separate article like cotton, silk and wool. As it is capable of being manufactured on a large scale by machinery from wood which is readily available its production and use have increased phenomenally by leaps and bounds. It was a serious competitor of silk as on account of its silky appearance it was called artificial silk and passed on as a kind of silk though not possessing the properties for which silk is really valued. The use of the word "Silk" has been prohibited by law in many countries in its connection. With experience and through propaganda especially in advanced countries the consumers have come to assess it at its real value and those who want silk do not go in for it. The intensity of its competition with silk has thus decreased. With the cheapening of its price it has now come to be a serious competitor of cotton and in India this competition is being felt so much that in the forthcoming meeting of the Indian Central Cotton Committee resolutions have been tabled for increasing the duty on

rayon yarn which is 5 annas per lb. at present so as to make it proportionate to the duty on rayon cloth which is 6 annas per sq. yard as one lb. of rayon yarn gives seven to eight yards of cloth. It is pointed out that 17,628,884 lbs. of rayon yarn was imported during 1936-37 and 60,000 looms mostly from Japan have been imported and are working and if the protection asked for be granted the Indian Mill Industry will be able to increase the consumption of cotton by ten lakh bales in a year. (Hindustan Standard, November 4, 1938). Rayon is thus to be considered not only in connection with the Silk industry but also and probably in a more intensive form in connection with the cotton industry. Had it been a competitor of Silk only the position could have been different. If the consumers could be properly guided and prevented from being duped into purchasing artificial silk (Rayon) fabrics as real silk I would exclude rayon yarn from the protective duty and place a high tariff on rayon fabrics. This would lead to enormous increase in weaving of rayon fabrics. This is now U. S. A. built its gigantic and admirable silk weaving industry for which the raw silk is imported free of duty. In view of the large imports of rayon fabrics it would be a point for consideration whether it would not be advisable to enforce by legislation labelling of all rayon fabrics as "Rayon—not silk" and prevent offering of rayon fabrics as silk under a penalty and let rayon weaving develop with the help of rayon imported without restrictive duty. Silk would not suffer on this account as those who want silk will take silk and not rayon. A little educative propaganda might be necessary for this purpose. Such legislation and propaganda are necessary in the interest of silk.

The present position however requires a different and at the same time serious consideration on account of the fact that the duty on artificial silk fabrics although moant as a protection for silk has had the effect of stimulating weaving of artificial silk fabric in this country thus intensifying competition with silk. The immediate remedy is to put a heavy duty on artificial silk yarn proportionate to that on fabrics. This will slow down production of these fabrics. Artificial silk fabrics cannot however be kept out and legislation for compulsory labelling and propaganda are necessary in the interest of silk.

It will now be evident that under the present conditions so far as the silk industry is concerned bounty is not likely to meet the case and protection is wanted. Also there are difficulties in administering the bounty. Adequate protection for silk and silk goods ensuring a remunerative price for the indigenous products will help the industry and bring about an increase in production. The minimum price we have suggested for raw silk is Rs. 6-4 per lb. The higher this can be fixed, of course up to a practicable limit, with a proportionately increased price of silk fabrics it will bring about improvement in a correspondingly shorter period of time, provided the protection is properly enforced and prevented from being nullified. Under the tariff protection adequate efforts should be made as in Japan to develop all phases of the industry to the modern standard on up-to-date lines.

Basis for Calculation of Tariff.

As will appear from paragraph 108 of the first Tariff Board's report in calculating the amount of protection, primarily the difference between the price of imported silk and the economic selling price of the home product were taken into consideration. The value of advantages enjoyed by the imported stuff in its country of origin was assessed at Rs. 2 and the value of protective tariff was fixed at Rs. 2-8 per lb. The Tariff recommended was this amount or 50 per cent. *ad valorem* whichever was higher. The Tariff adopted finally was 25 per cent. *ad valorem* plus fourteen annas per lb. It was expected that the tariff recommended by the Board would raise the price of the imported stuff to the level of the economic selling price of the raw silk produced in India. The invoice price of the imported stuff is the data on which actual calculation of the Tariff has to be made.

There is nothing to prevent the importer who has to sell his silk anyhow from putting the invoice price at a figure which in spite of the Tariff would keep its price always lower than the economic selling price of the Indian product. The market price of Japanese silk in Bombay has been even lower than the spot price in Yokohama and this silk has always sold in India at prices lower than what they should be when calculated on the spot price in Yokohama cum duty.

The basis of calculation should be the minimum economic cost of production of the homo product, viz., Rs. 6-4 per lb. for all filature and hand-reeled silk up to say about 50 denier. Whatever the invoice price the tariff should raise it to the above figure.

On account of very substantial monetary and other help received in various ways by the industry in Japan it is not easy to assess the value of advantages enjoyed by Japanese silk. Apart from these advantages some idea is obtained of what is considered as the minimum economic selling price for the Japanese producer by the minimum viz., 520 Yen per bala or 4 Yen per lb. fixed in the raw silk price stabilization plan. At par value of exchange 4 Yen is equivalent to Rs. 6-4. In the internal economy of Japan Yen has hardly any change whether its par value in India is Rs. 1-9 or by exchange manipulation it is reduced to about annas twelve as at present.

The Period of Protection.

Circumstanced as the industry is at present, a short period of five years cannot be expected to enable it to stand on its own legs. The two primary things connected with the industry are improved cocoons and improved mulberry both of which cannot be created according to order or desire. The two improved races of multivoltine worms Nistid and Nismo being adopted in Bengal is the result of about twelve years' work and no such races can be produced on the lines found out in less than about five years. Their maintenance in improved condition and further improvement is dependent on research and experiment.

The F₁ cross-breed worms now being reared in Mysore are the results of long continued research and experiment and their production and supply is a process of scientific work which must be maintained.

There is no quick process of effecting improvement in mulberry. Study and separation of the varieties selection of desirable varieties with desirable leaf-yielding capacity and with leaves of high nutritive value, response to manurial treatment, the methods of growth under conditions of different climate and soil and similar connected matters can be solved only after a long scientific process. Improved cocoons can only be secured with improved mulberry.

Adaptation to local conditions of methods of rearing, reeling and weaving found good elsewhere also requires trials and experiments.

Help to the industry in whatever form, tariff, bounty or subsidy must be for a sufficiently long period apart from the question of dumping.

I consider it necessary to explain the position with regard to item 5 at page 646 of the reprint of the article on improvement of sericulture appearing in Volume V, part VI, November, 1935 of "Agriculture and Live Stock in India". I would first of all draw attention to the fact that the 9 items give not my views but a gist of the recommendations of the previous Tariff Board. The item reads as follows:—

"Bounties or subsidies as in France and Japan are to be given as a more powerful agency for improving the industry than a general scheme of protection".

Read with paragraphs 167 to 169 of the Board's report this sentence does not present an argument for bounty to the exclusion of protection. It emphasises the necessity of organisation, research and improvement more than that of protection which was recommended only for a short period of five years.

SUPPLEMENTARY QUESTION No. 34.—Average acreage of mulberry per rearer family.

Total number of rearer families	15,300
Less those who have no mulberry land	218
	<hr/>
	15,182
Add mulberry growers who do no rearing	1,930
	<hr/>
Total	17,112
Total area of mulberry	10,000 acres.
Therefore average per family	58 acres.

But areas are known to vary from about 1/6th to 18 acres per family.

SUPPLEMENTARY QUESTION No. 36.

Average silk content of the cocoon of different races of worms taking all the five seasons into consideration:—

	Grains.
Nistari	1.12
Chotopolu	1.2
Nistid	1.86
Nismo	2.12
Barapolu reared only once in Spring	2.1

SUPPLEMENTARY QUESTION No. 37.—Spinning reeling waste.

Percentage of reeling waste locally spun on hand charkas is about one as the work has just been commenced.

(9) *Letter No. 23682-G., dated the 15th November, 1938, from the Director of Industries, Bengal.*

I have the honour to forward herewith the following notes with 12 spare copies of each:—

1. A note on research for the silk industry.
2. Schemes already undertaken and likely to be undertaken.
3. A note on the working of the Imperial Sericultural Committee.

Enclosure I.

A note on research necessary in the Silk Industry written for the Conference of the Directors of Industries with the Tariff Board on Silk enquiry to be held on 16th and 17th November, 1938.

Necessity of co-ordinated development of all the stages of the industry.

The three stages of the industry are (1) Sericulture proper comprising mulberry cultivation, seed (egg) production and cocoon production by rearing of worms, (2) reeling of cocoons into raw silk and (3) manufacture of silk fabrics. The first two stages produce the raw material for the third stage and ultimately it is on the success of the third stage that the welfare of the first two stages depends. All the three stages, the inter-dependence

of which is quite evident, have been carried on in India for ages and are capable of immense development which, however, is not possible without adequate research and experiment in these days of competition especially with countries which have of late developed their industry on up-to-date scientific lines. In fact Japan has very clearly demonstrated what research and experiment can do for the industry.

Subjects in which research and experiment are necessary.

- | | |
|------------------|---|
| I. First stage | A. Mulberry and its cultivation. |
| | B. Worms and their rearing. |
| | C. Diseases of worms. |
| II. Second stage | D. Treatment and storing of cocoons before reeling. |
| | E. Reeling. |
| | F. Standardisation of raw silk. |
| III. Third stage | G. Throwing processes. |
| | H. Weaving processes. |
| | I. Looms and appliances. |
| | J. Dyeing and printing. |
| | K. Designs. |
| | L. Standardisation of fabrics. |
| | M. Finishing of fabrics. |

As the aim is to organise research so as to serve the whole of India the discussion in this note takes into account, as far as I have been able to judge, the requirements of different provinces and states under the present conditions what has been attempted and done and what requires to be done. I, however, make this statement with the following qualifications, viz., (1) I am open to correction if necessary by the representatives of the various provinces and states and (2) with regard to the third stage my knowledge is necessarily limited and my remarks are applicable mainly to Bengal and other places where the manufacturing industry is practically wholly carried on by handloom weavers.

It is necessary to point out that some of the necessary items of research are of fundamental nature, can be carried out anywhere and are best carried out where facilities are already available. Local applications of the results of such research require local trials and experiments.

The items which I consider fundamental are the following:—

I. (A) As regards mulberry.

- (1) Separating out the existing varieties of mulberry.
- (2) Study of these varieties in relation to definitely known soil conditions. (a) Practical application of the results of this item entails a study of the soils where mulberry is grown.
- (3) Study of the constituents and nutritive value of leaves of plants growing in definitely known soils.
 - (a) This is likely to vary with the varietal characters of the plants, the subject of study under item 1.
 - (b) This item requires feeding trials and determination of reactions in the worm fed with leaves of known constituents and nutritive value.
 - (c) It is necessary to study how the varieties respond to budding, grafting and manures.

- (4) Diseases of mulberry and their relations to soil conditions.
- (5) Study in all the above aspects of exotic varieties.

The above items require co-operative efforts of a botanist, a soil or physical chemist and a bio-chemist. Mulberry fortunately does not suffer badly from insect or fungal pests. The botanist is expected to be able to tackle them with the help of entomologist and mycologists of the agricultural department.

Mulberry is yet practically wholly unworked in India. The importance and necessity of the above researches will be realised when it is remembered that mulberry accounts for about 60 per cent. of the total cost of rearing of worms. The aim is to have quick-growing and high yielding varieties of mulberry with leaves of high nutritive value and with properties enabling the plants to resist adverse climatic conditions, diseases and pests. For being able to rear superior races of worms superior leaves are a necessity.

I. (B) As regards worms.

1. The necessity is to have worms which will produce cocoons able to compete with the cocoons of inherently superior univoltine races of worms reared in Japan, China, near Eastern and European countries.

Out of the Sericultural areas in India Kashmir and the Punjab rear univoltine worms. All other places rear multivoltine worms. Therefore the principal requirements are for multivoltine worms.

Attempts have been made to improve the existing multivoltine races by hybridising them with univoltine races. In Mysore after a good deal of experiments first crosses between Japanese univoltine races and the local Mysore race have been adopted. This method is followed extensively in Japan. The Mysore Department maintains the univoltine Japanese races and crossing is done every time eggs are to be supplied to rearers and the resultant cocoons are reeled off. Complications arise in the second and subsequent generations.

In Bengal hybridisation experiments were undertaken about 1913 but were not carried through systematically and a great mistake was made in issuing to the rearers newly formed hybrid races whose qualities had not been fixed and which therefore behaved erratically and could not be reared successfully. Hybrids generally therefore got a bad reputation among the Bengal rearers. About 1922 all experiments were stopped and the department confined itself to the old multivoltines.

In Burma I effected crossing between univoltine Italian worms and the local Burmese multivoltine worms similar to Nistari of Bengal. The hybrids were reared through many generations eliminating the undesirable qualities in each generation and through a long selection in this manner extending over about five years, several fixed multivoltine hybrids were obtained which behaved so far as rearing went, exactly like the old existing multivoltines but producing superior cocoons about midway between Italian and Nistari cocoons.

Further infusion of Italian blood into these fixed multivoltines effected further improvement in the cocoon but the same process of elimination of defects and complications through selection was necessary. About half a dozen of the improved fixed hybrid multivoltines were brought with me to Bengal about July, 1936, and first tried at Berhampore. Out of them three races named Nismo yielding yellow and Nistid yellow and Nistid white yielding yellow and white cocoons respectively, have been found to do well. The Nistid race is already popular among the rearers in two districts and Nismo also is being adopted. The rearers are realising about 50 per cent. increase.

Hybridisation brings about an increase immediately. But there are difficulties in the practical application of it. Either the first cross, i.e., the hybrid in the first generation or the fixed multivoltine after elimination

of all complications has got to be used. The pre-requisites for successful production of first cross worms for general rearers are (1) successful establishment and rearing of univoltine races which can be crossed with the local multivoltine race and (2) trials to be sure that the first crosses can be successfully reared under local conditions. The univoltine races require to be maintained and crossing done every time eggs are required. It is necessary to take steps to prevent the univoltine races finding their way to the hands of general rearers. An agency is required to be able to produce first cross eggs on a large scale for the rearers. Mysore has brought about all these and has set up Government and aided grainages for production of first cross eggs for rearers.

In the case of the fixed multivoltines the process is as simple as in the case of the existing multivoltines. They have of course to be tried in the locality before issue to general rearers and if found successful can be multiplied easily on any scale by any one.

As regards silk content the Nistid cocoons are as good as the first cross cocoons of Mysore if not better as far as I could judge from the samples I have seen. Nismo cocoons are certainly better. I had occasion to see pierced univoltine Kashmir cocoons imported into Bengal for matka spinning. Nismo cocoons are certainly as good as and probably better than the majority of these reared in Kashmir.

Nismo and Nistid can be further improved by infusion of further Italian blood. The first cross cocoons of Mysore can hardly be improved further with the univoltines now in use. The behaviour in crossing with other univoltines cannot be predicted.

On the evidence of the results so far obtained hybridisation for improved fixed multivoltines is a promising line of research which should be continued. When such multivoltines are obtained they are a permanent acquisition and do not depend on the maintenance of other worms as the first crosses do. I am of the opinion that such races will also do well in the present univoltine rearing places such as the Punjab and Kashmir. They need be reared only in the proper season and if successful will eliminate the extra cost at present necessary to be incurred in the purchase of foreign eggs and in special arrangements for production and hibernation of univoltine eggs.

I am also of the opinion that the existing multivoltine races of worms such as Nistari and Mysore are hybrids produced long ago and now degenerate. This points to the necessity of maintaining the hybrids in vigour by infusion of fresh univoltine blood after some intervals of time.

I hope the line of research necessary for improvement of worms is now clear. The items are:—

- (1) Hybridisation of worms, indigenous and exotic.
- (2) Rearing trials of hybrids. Trials of first crosses will form a necessary step in the process. It is likely that first cross between two multivoltines may be found successful.
- (3) Study of hybrids in relation to mulberry varieties.

I. (C) As regards diseases of worms.

The diseases of worms were studied originally in France and the facts gathered about them there have been taken to be applicable to India, although our conditions as regards climate, soil and worms are different. The lines on which research is necessary are:—

- (1) Investigation of the causative germs themselves of the diseases.
- (2) Investigation of their behaviour towards climate varying rearing conditions and leaves of definitely known constituents.

What has been arranged for in Bengal with regard to the above items of research:—

For Mulberry.

	Annual expenditure. Rs.
In 1936 the Imperial Sericultural Committee sanctioned—	
One Botanical Assistant on Rs. 100	1,200
Contingent expenditure	300
	<hr/> 1,500
Travelling Allowance	300
Initial non-recurring expenditure	750
In 1937 a field and laboratory assistant was sanctioned on Rs. 35	420

Mr. Haridas Majumder, a private gentleman, donated a building for laboratory and 1½ acres land for field trials at Narayanpur colony, Dum Dum, worth about Rs. 10,000. The Botanical research station is located here. Good progress has been made in getting together the varieties of mulberry growing in Bengal and some varieties from other places too.

The Botanical Assistant in charge enjoys the guidance and help of the head of the Botany Department of the University College of Science, Prof. Agharkar and has facilities of consulting the herbarium of the Royal Botanical Gardens, Sibpur and the libraries of the University, the Asiatic Society of Bengal and other institutions.

For worms.

	Annual expenditure. Rs.
In 1936 the Imperial Sericultural Committee sanctioned—	
One Biological Assistant on Rs. 100 per month	1,200
Contingent expenses	300
	<hr/> 1,500
Travelling Allowance	300
Initial non-recurring expenditure	750
In 1937 a laboratory assistant was sanctioned on Rs. 35	420

The Senate of the Calcutta University at the initiation of Prof. K. K. Mukherji, the Head of the Zoology Department, provided free land for growing mulberry, rearing and laboratory accommodation and use of necessary appliances and permitted Prof. Mukherjee and his staff to render help through advice and guidance.

Good progress has been made here too and the lines on which work is being carried on are:—

- (1) Selection of the existing races Nistari, Chhotopolu and Barapolu.
- (2) Maintaining the fixed hybrids, Nistid and Nismo in selected condition and their further improvement.
- (3) Trials with first crosses.
- (4) Production of other hybrids like Nistid and Nismo with local Nistari and Chhotopolu.

For Diseases of worms.

	Annual expenditure. Rs.
In 1937 the Imperial Sericultural Committee sanctioned—	
A Protozoological and a Bacteriological Assistant on Rs. 100 per month	1,200
Contingent expenses	300
	<hr/> 1,500 <hr/>
Travelling Allowance	100
Initial non-recurring expenditure	750
	<hr/>

In this case too the Senate of the Calcutta University has given similar facilities as in the case of the Biological Assistant. Work was commenced only recently.

For chemical problems in connection with mulberry and worms.

	Annual expenditure. Rs.
In 1937 the Imperial Sericultural Committee sanctioned—	
An Agricultural Chemist and a Biochemist on Rs. 100 per month	1,200
Contingent expenses	300
	<hr/> 1,500 <hr/>
Travelling Allowance	100
Initial non-recurring expenditure	750
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In this case too the Senate of the Calcutta University at the initiation of Prof. J. N. Mukherji, the Head of the Physical Chemistry Department of the University College of Science permitted Prof. Mukherji and Prof. B. C. Guha, Head of the Biochemical Department to help and guide the work and provide free accommodation in the laboratory and free use of necessary appliances. Work was commenced only recently.

The problems for investigation are:

- (1) Study of the soils for growing mulberry.
- (2) Study of the plants and their growth in relation to the soil constituents and response to manures.
- (3) Study of the leaves, their constituents and nutritive value in relation to soil conditions and effect on the worms.

The work has necessarily to be carried on in co-operation with the Botanist and the Biologist.

The members of the Tariff Board have been good enough to visit the laboratories. I would also request the Directors of Industries to visit them.

It has been possible to make a beginning with the small amounts available for research only on account of a private benefaction and the help from the Calcutta University. The help of the University professors who are specialists in their lines is of immense value. The availability of literature

in the various libraries is an indispensable condition. The importance of the work is I am sure realised and it is necessary to be organised at a place where sericulture exists. Calcutta therefore has facilities hardly to be found elsewhere and widely separated areas such as the Punjab, Kashmir, Assam, Madras, Mysore and Behar can be best served from here.

The beginnings described above require to be strengthened on the following lines:—

- (1) The research officers are at present scattered in three places separated from one another by long distance. The work should be centralised at one place where a laboratory should be built, mulberry grown and rearing accommodation provided. The place should be as near Calcutta as possible so as not to lose the benefit of the help of the University Professors and libraries. Narayanpur where a beginning has been made suggests itself.
- (2) Two more research officers are necessary. At present one officer is meant to do both agricultural chemistry and biochemistry. Two officers are required for these two subjects. The protozoologist is also at present meant to do both protozoology and bacteriology. A separate bacteriologist is necessary. The disease flacherie is already found to be concerned with several bacteria which require the undivided attention of one man.

The complete organisation for these researches is indicated as follows with suggestions as to pay and travelling allowances. The pay while not being exorbitant should be sufficient to retain the services of the officer.

	Initial cost for the 1st year.
	Rs.
I. Biological Section—to deal with rearing of worms and hybridisation—	
Staff—	
1 Biologist—100—10—120 (Probation)—150— 10—200	1,200
1 Rearing Assistant—50—5—75	600
1 Hybridisation Assistant—50—5—75	600
4 Rearers (menials) at Rs. 15 each	720
II. Mulberry Selection—	
Staff—	
1 Botanist—100—10—120—150—10—200	1,200
1 Field Assistant—50—5—75	600
4 Malis (menials) at Rs. 15 each	720
III. Chemical Section—	
Staff—	
1 Agricultural Chemist—100—10—120—150— 10—200	1,200
1 Biochemist—100—10—120—150—10—200	1,200
2 Laboratory servants at Rs. 15 each	360
IV. Pathological Section—	
Staff—	
1 Protozoologist—100—10—120—150—20—200	1,200
1 Bacteriologist—100—10—120—150—10—200	1,200
2 Laboratory servants at Rs. 15 each	360

	Initial cost for the 1st year. Rs.
V. General Office—	
Staff—	
1 Clerk (typist)—40—40—45—5/2—75—3/2—90	480
1 Durwan—15—1/5—19	180
1 Peon—15—1/5—19	180
VI. One of the officers will be the officer-in-charge by rotation with an extra allowance of Rs. 25 per month	300
VII. Travelling allowances—All the officers are expected to visit different provinces	2,000
VIII. Laboratory and field expenses and miscellaneous contingent charges—	
Biologist	300
Botanist (including maintenance of mulberry for biologist)	600
Chemist and Biochemist	400
Protozoologist and Bacteriologist	300
Charges for electricity, gas and other office expenses	600
Upkeep of houses and the compound	1,000
Total	17,500
	Initial non-recurring expenditure.
	Rs.
I. Five acres of land at Rs. 1,500 per acre	7,500
II. Fencing	1,500
III. Reclamation of land and initial cultivation	1,000
IV. Four wells	400
V. Portable pump	700
VI. Pump for water supply to laboratories from an existing tube-well including pipe connections	400
VII. Buildings—	
(a) Combined laboratories, office library, etc.	21,000
(b) Three houses for rearing and seed-cutting with walls of unburnt bricks and thatched roof	2,500
(c) One store and shed for trays and appliances with C. I. roofing and pucca structure	1,000
(d) One block of two quarters for rearing and hybridising assistants who are required to stay whole day and night	4,500
(e) One block for 14 menials	4,000
VIII. Laboratory fittings and furniture	3,000
IX. Apparatus for laboratories chemicals and other necessities	12,000
X. Gas Plant and fittings	1,500
XI. Refrigerator	1,500
XII. Electrical fittings with connections	2,500
Total	65,000

The items of research mentioned under II and III in the list for the reeling and manufacturing stages are not exactly of fundamental nature but are necessary for those stages.

II. D. *Treatment and storing of cocoons before reeling.*

There is room for finding out a method of drying and storing cocoons which can be adopted by rearers. The present method of sunning when the sun is available is defective. It affects the quality of the raw silk. A cheap and simple method of drying with dry heat is required.

II. E. *Reeling.*

There is room for improvement in the method of hoiling the cocoons and reeling. This should be accompanied with testing in the Conditioning House.

This is a necessary item for the cocoons which the Biological officer will produce in the course of his experiments.

II. E. *Standardisation of raw silk.*

This is a necessary item in order to be able to produce raw silk of the kind which Japan places in the market. Co-operation of reeling concerns with the Conditioning House and efforts on their part to remove defects which the Conditioning House points out are the only way for bringing this about. The desired results can be achieved soon if the customers insist on definite qualities to be certified by the Conditioning House.

A reeling institute has been started at Malda where treatment and storing of cocoons as well as reeling methods are being tried in co-operation with the Conditioning House which has been started at Howrah. The Conditioning House can carry out tests of raw silk imported from outside and of what is produced in the country.

III. G-M. Researches under these heads are necessary in order to be able to produce high class standardised fabrics. Provision has been made in the proposed Silk Technological Institute at Berhampore for making a beginning in all these items. The scheme is described in the Five Year Plan, page 52, etc.

Out of the research schemes described above the fundamental researches under I stage may serve the whole of India. The Bengal Government Conditioning House may help in testing and standardising raw silk in the other provinces and states.

Results of work in the Silk Technological Institute will be of help to other places.

Enclosure II.

Schemes already undertaken by the Government of Bengal.

1. Seven nurseries are in existence where—

- (a) mulberry seedlings and saplings are produced and supplied to rearers.
- (b) stocks of worms are maintained and seed cocoons raised from cellular seed.
- (i) Cellular seed obtained from these seed cocoons are supplied to selected seed rearers who raise seed cocoons for supply to general rearers.
- (ii) seed cocoons from nurseries are also supplied direct to rearers.

2. A reeling institute has been started at Malda and six reeling demonstration parties have been started to demonstrate improved reeling in the districts.

3. A Conditioning House has been started.
4. Help is rendered to reeling concerns with loans.
5. Help is rendered to rearers with agricultural loans.
6. The scheme for reorganising the existing Silk Weaving and Dyeing Institute at Berhampore into a proper Silk Technological Institute as described at pages 52-58 of the Five Year Plan has been sanctioned, funds provided for it and the machinery ordered.

It will have three functions—

- (1) Experiments with looms, appliances, weaving processes, designs and fabrics.
- (2) Training of students and also weavers in new processes.
- (3) Developing Silk Weaving among the silk weavers who are to be combined into guilds. The guilds will be guided to produce standardised goods which will be finished, examined and certified by the Institute.

Schemes which have been undertaken with the help of the Government of India's subvention.

1. Expansion of the organisation for production and supply of disease-free seed.
2. Employment of demonstrators and propaganda officers among the rearers in villages.
3. Research work on mulberry, for improvement of cocoons, and for investigation of diseases of worms. As detailed in the separate note on research a private benefaction and the help of the Calcutta University have supplemented the grant received from the Government of India.

Schemes the policy of which has been approved by H. M. Finance and which are under consideration.

1. Starting of a Sericultural Research and Training Institute for carrying out (a) research on mulberry and worms and (b) training staff, graineurs and sericultural teachers for primary and secondary schools.

The scheme is to set up an institute with—

- (i) laboratories for the research workers,
- (ii) lands for growing mulberry for experimental purposes as well as for carrying on rearing of worms and raising mulberry seedlings and grafts for distribution to rearers,
- (iii) rearing accommodation,
- (iv) Class room for those under training,
- (v) Hostel accommodation.

The research staff is proposed to help in imparting training, a separate teacher being provided for rearing and a separate district demonstrator for mulberry.

2. Starting where necessary and equipping primary schools up to 20 among rearers each with a trained teacher about two-third acre mulberry and a rearing room for imparting Sericultural training properly to the children of rearers.

3. Demonstration of growing improved trees in different places among rearers.

4. Helping rearers with free supply of grafts and trees and a bonus on the lines adopted in Mysore and Kashmir to grow tree mulberry.

5. Improvement of the organisation for seed production and supply by—

- (i) bringing all selected seed rearers under full control with necessary help so that they may rear nothing but cellular eggs throughout the year, thus ensuring production of disease-free seed cocoons, and

- (ii) developing grainages for production and supply of disease-free eggs to rearers.

6. Continuance of the organisation set up with the help of the Government of India's subvention.

7. Formation of Silk Weavers' guilds which will be financed with a low rate of interest and guided to produce standardised goods by special staff. The goods will be finished, examined and certified by the Technological Institute and their marketing will be helped through a special marketing officer.

8. Organisation of reeling so that the reeling concerns may produce standardised raw silk in large quantities with the help of the Conditioning House and standardised raw silk may be marketed in large quantities with certificates of the Conditioning House. A bonus on better reeling and re-reeling may be necessary especially at the beginning.

Schemes which will require to be developed but which have not yet been taken in hand.

1. Arrangements for cocoon drying and storing among rearers. They are expected to serve as cocoon markets.

Enclosure III.

A note on the working of the Imperial Sericultural Committee.

The Tariff Board in their last report emphasised the necessity of continuous research to be carried on, on all-India as well as provincial basis, for securing the best varieties of mulberry, the best yielding races of worms and the best methods of reeling for export as well as for the home market and as a co-ordinating agency, controlling centre and clearing house for sericultural researches, practices and ideas recommended the formation of the Imperial Sericultural Committee as part of the Imperial Council of Agricultural Research. The sixth Industries Conference recommended this Committee to form part of the Advisory Council of the Industrial Intelligence and Research Bureau. The Imperial Sericultural Committee has since met once a year as an adjunct of the Industries conference. The committee no doubt receives reports of what work is done in different provinces. But as it consists almost wholly of Directors of Industries who cannot be expected to be experts in Sericultural matters the function of the Committee has so far consisted mainly in allocating grants to the different provinces out of the one lakh of rupees given for five years by the Government of India. This amount again has been mainly earmarked by the Industries Conference for production of disease-free seed, only about a tenth part of it being made available for research. Research is, however, more important from the all-India point of view than production and supply of seed which is the concern of the provinces and states.

The Committee was expected by the Tariff Board to be able to initiate, guide and co-ordinate research and practices and to advise on all matters including technical ones, connected with the industry. In order to enable it to carry out these functions it was recommended that it should be assisted by a wholetime silk specialist. This part of the recommendation has not been given effect to.

In order to have the desired results, if the Committee is to be left as it is at present, it is necessary to have a sub-committee or Sericultural Advisory Committee consisting primarily of persons who have the necessary knowledge and experience of Sericulture and who are actually in charge of general sericultural and research work in the different parts of India. This committee may also include representatives of reelers, throwsters, manufacturers and co-operative organisations connected with sericulture. The committee should meet better by rotation at different sericultural centres and discuss results, methods and progress of research, seed production,

reeling and all matters connected with the improvement to the industry. Its work can be expected to be carried on systematically if there is a wholetime specialist who studies and remains conversant with actual workings, needs, progress and development throughout India. He should regularly visit the different centres and remain in touch with the different departments at the same time keeping the latter informed of progress in other parts. In order to be able to carry out his function properly the specialist must remain associated with the all-India research organisation suggested. He should be able to find out lines on which investigation is necessary as a result of his studies of conditions in different places. It is only in this way that co-ordinated progress can be effected.

Financial provision for the Imperial Sericultural Committee.

1. Travelling allowance of non-officials to attend meetings—Rs. 2,000.
2. Silk Specialist—Rs. 750—50—1,000.
3. Travelling allowance for the silk specialist—Rs. 5,000.
4. One Clerk—Rs. 40—40—45—5/2—90.
5. Two peons at Rs. 15—1/5—19.
6. Office expenses and contingencies—Rs. 500.

(10) *Letter from the Director of Industries, Bengal, dated the 26th November, 1938.*

I have the honour to send herewith the following statements for your consideration:—

- (1) A Statement of the information placed before the Tariff Board from Bengal.
- (2) Fair selling price for one lb. of raw silk in Bengal.
- (3) Note on registration of raw silk sellers and imposition of duty on existing stocks.

A Statement on the information placed before the Tariff Board from Bengal.

1. The utmost efforts have been made to collect actual facts as existing at present and they are applicable to the present conditions.
2. The present conditions are not at all favourable to the industry which has declined rapidly and owing to unremunerative prices the quality of cocoons and silk has also suffered.
3. The facts placed before the Board should not be taken as the basis for calculation of requirements of the industry but they indicate the conditions under which the industry is declining and these conditions require to be improved if the decline has to be arrested and the industry given a chance to revive.
4. The statements relating to the minimum prices which are deemed necessary for cocoons and raw silk should be considered to be based on the above premises.

Fair selling prices per lb. of raw silk in Bengal.

The grades of raw silk reeled on *charkhās* in Bengal are described as—

- | | |
|--|---|
| 1. Tana—
(represented by Malda Tana and
Birbhum filature in the annexure
VII). | Conforming according to class- 1st grade.
fication adopted by, the
Board to |
| 2. Bharna—
(represented by Malda bharna,
Murshidabad and better types of
Birbhum Khamru.) | ditto . . . 2nd grade. |
| 3. Inferior types of Khamru and
better types of ghora. | ditto . . . 3rd grade. |

There is really a very inferior type of ghora which cannot be included among the above but forms a class by itself. The first two grades are, however, the major portion of the produce.

Annexure VII shows the actual cost of production as actually observed and actual prices paid for cocoons. It has to be pointed out that in the case of Birbhum "filature" the price paid for cocoons is ridiculously low, viz., 2 annas 8 pies per lb. What actually happened in this case was that on account of absence of other reelers most of the rearers left their cocoons in this concern and were paid at rates considered profitable by the concern on the prices realised for its products. The khamru reelers are generally individuals or families who work one, two or three basins, mostly do the reeling themselves and hardly possess much credit. They had to pay 5 annas 2 pies per lb. as against 2 annas 8 pies paid by the "filature" concern. At this price the filature concern did not lose but it was the cocoon producers who lost, and whose actual cost of production was of 3 annas 9.5 pies. The actual average price paid by others for cocoons is 4 annas 6 pies per lb.

In the case of Bengal the following points require consideration, viz., rendita, daily output per basin and re-reeling charges.

Rendita.

As regards rendita the following are the actuals:—

Actuals.

1st grade raw silk	18.35 in the case of 628 lbs.
	18.4 in the case of 777 lbs.
	18.4 in the case of 7,444 lbs. by the All-India Spinners Association.
2nd grade raw silk	14.6 in the case of 5,177 lbs. under departmental observation.

Haji Amu, a big reeler, who had a rendita of 17 in a particular lot about which he submitted a statement before the Board admitted that the raw silk was slightly better than 2nd grade (*bharna*) but not equal to 1st grade (*tana*).

Haji Moniruddin Ahmed, another big reeler, admitted before the Board that with a rendita of 16 he had to sell his raw silk at a lower price than that paid for 1st grade (*tana*).

Therefore under the existing conditions in Bengal with Nistari and Chhotopoli cocoons the rendita for 1st grade cannot be taken at less than 18.37 as compared with 15 adopted in the joint memorandum of the Directors of Industries.

Nistid and Nismo races are just being adopted and their present use is about 2 per cent. As far as our trials go we cannot confidently recommend them between June and September, i.e., during the rains. We have received hopeful results only in the dry seasons when arrangements are being made to give them as extensive trials as possible.

The industry, however, requires immediate help and for the first few years from now the rendita cannot be calculated at more than about 18 at the most for 1st grade raw silk. But at present the rendita for 1st grade silk has got to be taken at 18.37 as actually observed. Otherwise Bengal

will suffer in comparison with Kashmir and Mysore. With rendita as actually observed in Bengal the fair selling prices are calculated below:—

	1st Grade.	2nd Grade.
Wages of reeler . . .	As. 8	As. 7 as allowed by the Tariff Board.
Wages of turner . . .	As. 4	As. 4 do.
Daily output . . .	1½ lb.	1½ lb.
Price of cocoons . . .	As. 5	As. 5 per lb.
Rendita . . .	18.37	14.6

	Rs. A. P.	Rs. A. P.	
Cost of cocoons . . .	5 11 10.2	4 9 0	
Cost of labour . . .	0 9 7.2	0 7 4	
Cost of fuel and water . . .	0 4 9.6	0 4 0	as allowed by Tariff Board. The actual is, however, higher, viz., As. 5-8.7 for 1st grade.
Selling expenses . . .	0 1 6	0 1 6	as allowed by Tariff Board.
Transport of cocoons and brokorage . . .	0 2 0	0 1 10	do.
Contingencies (transport charges of silk, cost of oil, thread, skein making, steaming of cocoons, etc.) . . .	0 1 0	0 1 0	do.
Supervision and management . . .	0 0 10	0 0 8	do.
Repairs . . .	0 0 1	0 0 1	
Works cost . . .	6 15 8	5 9 5	

Add—

Interest on working capital at 12½ per cent. for 3 months . . .	0 3 0	0 2 9.3	do.
Depreciation . . .	0 0 3	0 0 3	do.
Profit . . .	0 2 0	0 2 0	do.
	7 5 5	5 14 5.3	

Deduct—Cost of 1 lb. of waste for 1st grade and ¾ lb. of waste for 2nd grade . . .

0 4 0	0 3 0
7 1 5	5 11 5.3

Add—Re-reeling charges including wastage in re-reeling . . .

0 6 0	0 6 0
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Fair Selling Price . . . 7 7 5 6 1 5.3

The competitor of 1st grade Bengal silk is Japanese re-reeled silk which is at present selling at about Rs. 6 per lb. From all considerations, from the fact that Babu Hanumandas Sarda actually pays As. 8 more than ruling prices to get his desired quality and according to the opinion of the biggest dealer in Bengal at present, Babu Narayandas Behani it is not possible to sell 1st grade silk at less than about Rs. 7-8 per lb. Without this price the quality of Bengal 1st grade silk is not expected to be such as to have any demand against Japanese imported re-reeled silk. Bengal had till only recent times held its own in South, Central and Western Indian markets in spite of developments in Mysore. Lower prices have brought about a deterioration in quality which only an adequate price can restore.

As regards second quality the competitor is Canton which should not sell at less than the price arrived at for Bengal 2nd grade, i.e., about Rs. 6-2.

My previous statement that Rs. 6-4 should be the selling price was based on the average of the different grades and without any charge for re-reeling. As it is not possible to arrive at similar averages for imported silk I revise my statement and calculate for different grades separately.

Daily Output.

With two onds reeled at a time, no separate cooking, short filament length of cocoons, and emphasis on quality and uniformity it is not possible to get an outturn of more than about 1½ lbs. per hasin in the case of 1st grade silk.

Re-reeling charges.

The Board has allowed only 3 annas per lb. Actually, however, re-reeling apart from the process involves wastage. Including wastage the actual charges incurred by Haji Moniruddin Ahmed is reported to be 6 annas per lb. of re-reeled silk. The all-India Spinners' Association asks for 8 annas as re-reeling charges. It cannot at present be less than 6 annas per lb.

One important point which I wish to bring to the notice of the Board is the possibilities of import of raw silk and stocking of it against any contemplated protection. The effect of protection may be nullified for about three years or more in this manner. The only way this as well as sale of smuggled silk can be stopped is to enforce legislation for registration of raw silk sellers and imposition of the protective duty on all stocks of imported silk existing in the country on that date as was done in the case of matches. Sale of imported silk at less price than what is fixed with duty after the date of imposition of protection should be penalised.

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- (11) *Statement of Proprietor of Pure Silk Bhandar and Bengal Silk Stores, Vishnupur, forwarded by the Deputy Director of Sericulture, Bengal, on the 25th November, 1938.*

It is observed that—

- (1) cloths woven with foreign silk are passed off as woven with Indian silk;
- (2) cloths woven with artificial silk are similarly passed off as of pure silk;
- (3) cloths woven with spun silk and staple fibre are similarly passed off as of pure silk. Such cloths made in Ludhiana and Bhagalpur frequently write out with a stamp guarantee of these cloths being pure silk.

In all the above manners those who do not recognise pure silk are cheated. This interferes very seriously with the sale of Indian silk cloths and should be prevented by legislation.

What we feel is that Government should spend an adequate amount for improvement of the silk industry in all its aspects out of the duties realised on imported silk.

(12) Representation of Proprietor of Pure Silk Bhandar and Bengal Silk Stores before the Tariff Board.

1. I am a manufacturer of about ten years' experience of silk fabrics with Malda charka raw silk and have business in Calcutta, Madras, Bombay and Delhi.

2. As such a manufacturer my experience is that the raw silk should sell at not less than about Rs. 12-8 per seer (best quality)—I of course pay and am prepared to pay one rupee more per seer for quality but this is for my own use only for manufacture for high class customers. If raw silk sells at less than this rate the rearers of cocoons and reelers of silk do not get sufficient remuneration.

3. As regards silk fabrics they are at present selling at very low rates which is not desirable.

Really speaking very low price for silk fabrics goes against silk. Gentlemen customers who use silk value it to a great extent for its high price as a mark of its distinction from common apparel. Raising of price by duty on all kinds of foreign silk cloths and yarn and consequently rise of price of our indigenous goods will not affect the use of silk. Those who want silk will use it. As a matter of fact silk cloths which are now selling at about Rs. 3 used to sell at about Rs. 12 about ten or twelve years ago. At that time many more weavers got work and got very fair remuneration and much more wages than at present. In spite of very low prices only about a fourth of the weavers are at present getting work. The lower we are going Japan is going still lower and this should be stopped.

4. As manufacturers we see that the larger the manufacture and the larger the sale we can work at less and less profits. We see that Japanese fabric sellers can flourish at very low profits because on account of lower prices of Japanese stuff the sale is larger. If Japanese cloth sells at Rs. 1-8 per yard and we can offer say at Rs. 1-7 we shall be able to effect larger sales and consequently on smaller profits than now. The point is that the Japanese stuff should not sell at very low prices. Large sales will give larger work to weavers and bring about larger use of indigenous yarn.

5. As consumers of raw silk we feel that at present supply of raw silk from Bengal is not at all satisfactory. There is no standard on which we can depend. First of all we want a standard, as for instance as done in Kashmir. For this purpose large reeling factories are desirable combined with testing. Probably the first factory is better done by Government. Even if small cottage reelers carry on their work what is wanted is some agency to examine and pass their product. Then the stuff can be sold by them anywhere. Testing should be insisted upon.

6. At present what we see that with rise in prices the quality of Malda raw silk deteriorates. Most of the reelers are illiterate and with rise in price and demand they wish to make profit as quickly as possible by producing and passing off inferior stuff though it reacts on them and the lower quality soon brings about a fall in demand and loss of faith.

7. We find that silk yarn and fabrics from Japan sell at the same rates at Bombay, Calcutta, Madras and Karachi while if we want to transport

these goods between Bombay, Madras, Karachi and Calcutta we have to pay about four annas per lb. for freight and expenses. This is pointed out to emphasise the fact that protection should take this into consideration in order to enable indigenous goods to compete with Japanese goods.

(13) *Letter No. 384-T., dated the 28th November, 1948, from the Deputy Director of Sericulture, Bengal, Berhampore.*

I have the honour to say that it seems to me that the position as regards—

(1) consumption of leaves for a lb. of cocoons,

(2) the new races Nistid and Nismo,

has not been made quite clear to the Board and two short explanatory notes are submitted. Calculation of estimated output of raw silk is also submitted.

Enclosure I.

The New Races of Worms.

1. The new races, Nistid and Nismo have just been introduced and were issued to general rearers only last year.

2. As regards the extent of their use it has to be pointed out that rearers rear four or five crops of worms during the year and get seed cocoons for each crop from Government nurseries or selected seed rearers or other usually of other places than their own. They do not stick to the same races of worms or seed cocoons of the same locality in all seasons.

3. The new races are in the hands of the Department and their eggs or seed cocoons are issued to selected rearers or general rearers respectively in places where it is intended to try these races. The trials undertaken are extended over as large areas and over as many rearers as can be supplied in order to get an idea of the behaviour of the races. During the period of trials so far undertaken the quantity of seed cocoons used has represented less than two per cent. of the total seed requirements though the number of rearers rearing them in one season was as large as about five per cent. of those engaged in rearing that season in two districts. In many cases the rearers have reared as a trial small quantities of these races along with their own rearing of Nistari or Chotopoli.

4. It cannot be expected that the new races will be accepted for general use so soon and without further trials by conservative rearers. After they are so accepted production and supply of their eggs have got to be organised.

Enclosure II.

Leaves required for a pound of Cocoons.

The Board may be good enough to ask the Bengal National Chamber of Commerce whether the statement that only 12 lbs. leaves without twigs are required for a lb. of cocoons is based on actual weighments of leaves supplied including wastage or on more reports of rearers. I ought to have asked this question but missed it. I also ought to have pointed out that in the Government nurseries where regular weights are taken of leaves fed to worms the weights of leaves without twigs vary usually from 15 to 18 and occasionally go up to 20 lbs. according to season for every lb. of cocoons produced. The figures submitted to the Board were specially collected from 20 out of about 10,500 rearers in Malda, 8 out of about 3,500

rearers in Murshidabad and 7 out of about 1,000 rearers in Birbhum in order to test the conditions among rearers. In the light of actual weights observed in nurseries there was no cause for especial enquiry about the divergences in the figures of leaves of the rearers under observation in the three districts. The average of which came to 15½ lbs. of leaves without twigs fed. Food consumption does not depend on largeness or smallness of area. The results here only confirmed the facts accepted in other countries.

As regards consumption of leaves Bengal or Madras cannot have any special advantage over Kashmir, Mysore or Japan in all of which the accepted figure is 16 lbs. of leaves without twigs for every lb. of cocoons produced.

Any alteration of this figure will deviate from the general average expected in practice. With less than this quantity of food the worms are starved and produce poor cocoons.

Explanation as to how the estimate of 4 lakhs lbs. Raw Silk was arrived at.

The area kept under observation for finding out cost of cultivation of leaf was about 116 bighas. The average yield of these bighas came up to about 68 maunds.

This average, however, was not taken into consideration in arriving at the above estimate. It was observed that yields varied from about 30 maunds to about 129 maunds per bigha. As the exact proportion of good and bad lands is not known and as poor lands do not pay and generally the rearers maintain the better lands, a rough estimate at 80 maunds leaf per bigha was taken as average.

Therefore per acre—

240 maunds leaf without twigs,
or 120 maunds leaf without twigs,
or 9,600 lbs. leaf without twigs.

Cocoons at 16 lbs. leaf—600 lbs.

Raw silk at 15 rendita—40 lbs.

Therefore 10,000 acres=raw silk 400,000 lbs.

(14) *Letter, dated the 9th December, 1938, from the Deputy Director of Sericulture, Bengal.*

The appended notes are herewith submitted according to the instructions of the President.

Documents accompanying:—

- (1) Details of cost of production of various kinds of handwoven goods.
- (2) Corrigendum of note on Research necessary in the Silk Industry written for the conference of the Directors of Industries.
- (3) Reply to supplementary question No. 28 regarding number of silk mills.
- (4) Handloom weaving industry.

REPLY TO SUPPLEMENTARY QUESTION No. 28.

No. of silk weaving mills at present is six in Bengal—one having been opened recently for artificial silk only.

Handloom Weaving Industry.

Province.	No. of persons supported.	No. of looms working on			Annual Value of Silk Goods.
		Silk.	Cotton.	Total.	
					Rs.
Bengal .	484,000	4,119	111,311	115,430	12,25,000

The following additions should be made in the note on Research necessary in the silk industry written for the conference of the Directors of Industries, with the Tariff Board on Silk, enquiry to be held on 16th and 17th November, 1938.

Page 11, Under col. III—Chemical Section:—

Staff:—

Initial cost for the 1st.

Rs.

One Analyst—75—10—125 75

Page 13:—Under initial non-recurring expenditure:—

Below XII.

XIII. Lump provision for Library of common reference books 1,500

Total . 66,500

Cost of Manufacture of Saris in Power Loom.

	45" × 6½ yds. weight 26 tolas in finished condition.		45" × 5 yds. weight of Sari 17½ tolas in finished condition.	45" × 5½ yds. weight of Sari 40 tolas.
	With extra quality Kashmir Silk 20—22 denier.	With Japanese Silk.	With Spun and Raw Silk both Japanese.	With artificial Silk (Japanese).
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Material . .	6 8 0	5 2 0	Spun Silk 1 11 0 13 tolas. Raw Silk 0 14 0 5½ tolas.	1 2 0 Including wastage.
Labour for all processes.	1 8 0	1 8 0	1 2 0	1 4 0
Cost . . .	8 0 0	6 10 0	3 11 0	2 6 0
Sale price . .	9 0 0	8 0 0	5 0 0	3 0 0 to 3 8 0

Cost of High quality Murshidabad Suri 46" x 54 yards with plain border.

		With Bengal Silk.	With Japanese Silk.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
1. Cost of raw material— price prevailing in November, 1938, per lb. . . . .	...	6 8 0	6 0 0
2. Winding and twisting:--			
(a) Winding	0 7 6		
(b) Twisting	0 6 0		
	<hr/>	0 13 6	0 13 6
3. Bleaching . . . . .	...	0 2 0	0 2 0
4. Warping and beaming . . . . .	...	0 4 3	0 4 3
5. Sizing . . . . .	...	0 2 0	0 2 0
6. Dyeing border . . . . .	...	0 8 0	0 8 0
7. Other charges—(Reed)	...	0 1 3	0 1 3
Other charges—(Heald thread) . . . . .	...	0 0 4	0 0 4
8. Weaving (Labour) . . . . .	...	2 12 0	2 12 0
	<hr/>	<hr/>	<hr/>
Total		11 3 4	10 11 4

(15) *Supplementary statements received from the Deputy Director of Sericulture, Bengal, Berhampore.*

STATEMENT No. 1.

Mulberry.

1937-38.

Yield per acre.	Cost of cultivation.	Cost of cultivation per lb. of leaf.
	Rs. A. P.	
18,000	78 0 0	·83 pice with twigs.

STATEMENT No. 2.

Year.	Production of cocoons.	Value of cocoons.	Silk reeled.	Value of Silk.	Silk waste.	Value of Silk waste.	Remarks.
	lbs.	Rs.	lbs.	Rs.	lbs.	Rs.	
1931-32 . . .	14,500,000	36,50,000	1,000,000	50,00,000	500,000	1,25,000	Vide page 28 of Board's report, 1933.
1933-34 . . .							
1937-38 . . .	6,000,000	15,10,000	400,000	20,00,000	400,000	100,000	

The figures are approximately as in 1937-38

STATEMENT No. 3.

Year.	Acreage exclusively under mulberry.	No. of persons depending on Silk worm rearing (mostly part time).	No. of country reeling machines of one basin each.	No. of power driven filatures.	No. of power driven filature basins.	Total No. of basins.	No. of persons engaged in reeling and connected branches.
1931-32 . . .	25,000	160,000	5,000	Nil.	Nil.	5,000	15,000
1937-38 . . .	10,000	79,000	4,175	2	6	4,181	17,360 Including matka spinners and demonstration basins.

(16) NOTES SUBMITTED BY THE DEPUTY DIRECTOR OF SERICULTURE, BENGAL.

(i) *The case before the Tariff Board.*

1. The prosperity of the Sericultural Industry is dependent entirely on the price obtained for raw silk. If the price of raw silk goes down below about Rs. 6-4 per lb., the price paid to cocoon rearers by reeling concerns is so low that rearers get discouraged. The minimum cost of production of a lb. of cocoons to the cocoon-grower is four annas calculated as just the equivalent of wages for labour devoted and expenses incurred and as determined by an economic census extending over a whole year. At 5 annas per lb. of cocoons which is the boundary line between their economic and uneconomic price the cost of production of 1 lb. of raw silk comes to about Rs. 5-15 exclusive of cost of supervision, interest on capital, etc. With a price lower than Rs. 6-4 per lb. production of raw silk becomes uneconomic and the quality of raw silk suffers as for want of a fair price an indifferent thread is attempted to be produced. With low price of cocoons proper attention is not paid to rearing too with the consequence that the quality of cocoon also suffers. In order to be able to compete with imported raw silk it is essential that both cocoons and reeling should be good. Therefore without the minimum prices mentioned above, *viz.*, annas five per lb. of cocoons and Rs. 6-4 per lb. of raw silk which are just sufficient to be considered fair by both rearers and reelers, attempts at improving the industry too may not be attended with success. A price of 6 annas per lb. of cocoons would stimulate the industry.

The importance of the industry to the province will be evident from its ancient history and also from the number of families and persons engaged in it even so late as 1933-34, when about 19,000 families or about 95,000 persons were engaged in rearing, 10,000 persons were engaged in reeling, 15,000 persons were engaged in spinning and about 8,000 persons were engaged in weaving.

Within the last 15 years rearing has practically disappeared from the districts of Rajshahi, Bogra, Midnapore and Bankura. No other crop is considered even now as satisfactory as silkworm rearing. The rearers in these districts as well as many in the present silkworm rearing districts, *viz.*, Malda, Birbhum and Murshidabad who have given up rearing only recently, are anxious to resume this work if only they obtain a fair price for cocoons. Besides sericulture is not a subsidiary but a main occupation to as many as about 6,000 families or about 30,000 persons even now. If sericulture disappears they will be reduced to the condition of day-labourers and many may take to criminal methods of livelihood.

The existing tariff or protection given.

Article.	Duty recommended by Tariff Board.	Duty actually imposed.
Raw silk	Specific duty Rs. 2-6-0 per lb. or <i>ad valorem</i> duty 50 per cent. whichever is higher.	
Thrown silk, spun silk, silk yarn, noil and warp.	Do. .	
Cocoons	50 per cent. <i>ad valorem</i> .	25 per cent. <i>ad valorem plus</i>
Raw silk including cocoons.	....	0-14-0 per lbs.
Silk yarn including thrown silk warps.	....	Do.
Silk yarn spun for waste or noils and sewing threads.	....	Do.

That the above protection is inadequate is evident from the fact that the imported silk is selling at such a low price that locally produced raw silk had to be sold at Rs. 3 per lb. as against Rs. 5-1-5 per lb. (average of tana and varna raw silk) the actual cost of production on the basis of price paid for cocoons and without including charges for supervision, etc.

Difficulties.

(a) Low price of raw silk and necessarily of cocoons which does not fetch to rearers and realers even the cost of production.

(b) For the above reason the quality of both cocoons and raw silk suffers.

(c) In marketing raw silk quality is the most important point. On account of low prices attempts at improvement too are not likely to be attended with success. Only recently the Industries Department have undertaken measures for improving quality and marketing standardised, examined and certified raw silk. These attempts are not expected to be successful if a fair price is not assured to the producers which is possible only by adequate protection.

(d) There is another point which requires emphasis even if adequate protection be granted, viz., that the protection be effectively enforced and not evaded as happened owing to extensive smuggling in the past. In this connection a proper invoice valuation of the imported raw silk, etc., should also be attended to for purposes of tariff valuation.

(ii) Facts gathered from census.

1. Cost of production of mulberry leaves according to the prevalent bush system without irrigation and harvested with twigs as usually done for feeding the worms, the leaves and twigs being weighed together.

In order to arrive at a uniform figure in different districts, actual hours of work devoted were noted and wages calculated for those hours only at the prevalent rates. On this basis the average cost amounted to '58 per lb. As engagement of labour on hourly basis is not feasible in practice at least about 33 per cent. should be added in order to arrive at a minimum practicable figure. Therefore '8 pies per lb. is taken as the minimum cost of production by rearers. The actual figure in nurseries where all labour is paid for is 1'6 pies per lb.

2. Quantities of leaves required to be actually supplied to worms for producing one lb. cocoons, incidental wastage not being taken into consideration—31 lbs.

3. Price of 31 lbs. leaves at '8 pies per lb. representing about 52 per cent. of cost of production of cocoons—24'8 pies.

4. Wages for actual hours of labour devoted, cost of seed, etc., representing 48 per cent. of cost of production of 1 lb. cocoons—22'9 pies.

5. Actual cost of production of one lb. cocoons taking into account the actual hours devoted, the seed in all cases being unexamined seed cocoons—47'7 pies.

6. Minimum economic price of one lb. cocoons by adding 33 per cent. to the cost under item (5) amounts to 5 annas 3'6 pies and cannot be taken at less than 5 annas especially if examined seed is to be used—5 annas.

7. Actual price paid for cocoons per lb. by the factories under observation for census—As. 4-2.

8. Actual rendita, i.e., lbs. of cocoons yielding 1 lb. silk—15'75 lbs.

9. Actual cost of production of 1 lb. raw silk from cocoons purchased at 4 annas 2 pies per lb. excluding cost of supervision, etc.—Rs. 4-13.

10. Price of 15'75 lbs. cocoons at 5 annas representing about 83 per cent. of cost of production of 1 lb. raw silk excluding charges for supervision, interest on capital, marketing, etc.—Rs. 4-14-9.

11. Other expenses representing about 17 per cent. of the above cost—Rs. 1-0-7.

12. Cost of production of 1 lb. raw silk (tana and bharna) excluding supervision, interest on capital, marketing, etc.—Rs. 5-15-4.

13. Cost of production in a steam filature of good raw silk—

	Rs. A.
Price of 18 maunds cocoons to produce one maund	
raw silk at 5 annas per lb.	450 0
Cost of reeling after deducting price of waste	70 0
Works cost on a lb. of raw silk	6 8

(iii) *Requirements of the industry.*

1. Research (A) in connection with rearing, i.e., for improvement of mulberry, worms and cocoons and prevention of diseases of worms and mulberry, (B) for improvement of raw silk, (C) for improvement of weaving, dyeing, printing and finishing.

2. Organisation for production and supply of disease-free eggs to rearers.

3. Help for getting improved mulberry grown by rearers. A connected problem is high rent for mulberry lands.

4. Facilities of training for work under items 2 and 3.

5. Help for the reeling industry—

(a) Arrangements so that reelers may get a remunerative price for their raw silk,

(b) Standardisation and certification of raw silk,

(c) Organised supply of standardised raw silk in bulk,

(d) Organisation for production and supply of thrown yarn,

(e) Organisation for production and supply of dyed yarn,

(f) Railway freight to different consuming centres.

6. Help to manufacturing industry—

(a) Study of fabrics in demand,

(b) Organisation of silk weavers into guilds,

(c) Monetary help to the weavers' guilds,

(d) Production of standardised fabrics under supervision by these guilds.

(e) Examination and certification of woven fabrics,

(f) Marketing of woven fabrics.

7. Prevention of fraudulent competition on account of passing off of artificial silk goods as pure silk and also passing off of fabrics woven with foreign raw silk as those woven with Bengal silk.

II. What has been already arranged for in Bengal to meet the above requirements.

1. (A). Research has been undertaken with the help of the Government of India's grant and in co-operation with the University College of Science—

(i) for improvement of races of worms and cocoons. Some improved races are already available.

(ii) for study of mulberry varieties, selection of suitable varieties and methods of growing them in the best possible way through budding, grafting and manuring.

(iii) for investigation of diseases of worms and mulberry.

(B) A reeling institute has been started by the Government of Bengal at Malda and six reeling demonstration parties have been sanctioned for work in the districts.

The reeling institute in co-operation with the Raw Silk Conditioning House aims at bringing about improvements in machinery and methods in order to improve the quality of raw silk.

(C) Re-organisation of the Silk Weaving and Dyeing Institute at Berhampore into a Silk Technological Institute has been undertaken by the Bengal Government.

2. Organisation for seed production and supply already existing has been further strengthened with the Government of India's grant.

5. (b) Raw Silk Conditioning has been started by Bengal Government.

(c) Supply of standardised raw silk is proposed to be undertaken by the Raw Silk Conditioning House.

(d) and (e). Provision has been made in the Silk Technological Institute so that these can be developed.

6. (a), (b), (d), (e) and (f) Provision has been made for all these in the reorganised Silk Technological Institute.

III. What requires to be arranged for.

3. In order to evade the evil effects of drought and floods which affect bush mulberry very badly and in order to lessen cost of production of leaves tree mulberry is essential. This requires fostering with bonuses as is being done in Mysore and Kashmir. (See Help as regards mulberry in the note on instances of the way help is rendered to the silk industry in different countries).

4. Formation of a Sericultural Research and Training Institute is under consideration. It is proposed to get the research officers together in an institute where research will be carried on and at the same time training of staff and others if any interested in sericulture will be carried out.

5. (a) A remunerative price for the raw silk is practically the pivot of the whole industry. Reeling concerns can then (i) pay a proper price for cocoons which will help the rearing industry and (ii) produce better quality raw silk which in addition to helping the reeling industry itself will benefit the manufacturing industry by providing the latter with high quality raw material. A remunerative price requires to be assured by protection or both protection and subsidy.

Addition of better croisure arrangement to the existing country reeling charkas produced better silk but as this silk was better consolidated and free of dirt for every maund of raw silk produced there was a loss in weight of about 2 chittaks. The better silk, however, was not paid more by the merchants. It appears that in order to introduce better methods a small subsidy has to be paid for some time.

5. (f) The freight from Japan to an Indian port works out to about a pie per lb. But railway freight from Bengal to say Kumbakonam works out to about 30 pies per lb. The railway freight requires to be reduced in the case of silk (See Note on railway freight attached).

6. (c) Monetary help to silk weavers' guilds.

A census is being taken with a view to formation of such guilds. The facts which have come to light in this connection are (1) Most of the weavers have been reduced to the condition of daily wage earners and cannot take any shares in the guilds though they are willing to pay for shares gradually by deduction from their wages.

(2) The weavers are unwilling to work under the co-operative department and it may probably be necessary to legalise the guilds by a special act.

(3) The weavers although willing to join the guilds are not prepared to accept unlimited liability and want their liability to be limited to their shares.

(4) The guilds require loans on a small rate of interest especially as they will have to fight the existing mahajans who are almost wholly monied Marwaries.

(5) Silk weaving in Bengal is mostly done on handlooms. A part of the grant for handloom industry should be made available for handlooms engaged on silk weaving.

7. In this connection legislation against such practices may be referred to in the note on "Instances of the way help is rendered to the silk industry in different countries".

The general opinion about Bengal silk is that it improves with washing and age, while Japanese and Chinese silks deteriorate. The weavers too who are compelled to weave foreign yarn by the mahajans are very sore on this point, being afraid that their reputation is at stake.

Prof. Lefroy (Report, Vol. I, page 208) thought that legislation was called for (1) stamping every imported fabric with a statement of its composition, applying the term silk to no fabric which contains more than five per cent. of other fibre, (2) optional stamping of Indian fabrics subject to penalty for false description, (3) providing for prosecution of any firm or dealer who described or sold fabrics which contained less than 95 per cent. silk in a manner calculated to deceive the customers as to its composition.

At present lots of artificial silk and mixed fabrics are being woven in the country and passed off as silk.

8. Another point which may be discussed is reorganisation of the Imperial Sericultural Committee on the lines suggested by the last Tariff Board. At present the function of this Committee is simply to distribute the Government of India's grants. A conference of actual workers on sericulture and discussion of methods and results is desirable.

(iv) Instance of the way help is rendered to the silk industry in different countries.

RESEARCH AND EXPERIMENT.

Japan.—(1) The Imperial Government maintains 7 research and experiment stations at an annual budget of 460,000 yen (1928).

(2) The provincial governments maintain 69 research stations at a total cost of about 250,000 yen.

(3) Grants are given for special investigations whenever deemed necessary. Some of the subjects for which special grants have been given are—

- (a) Investigation as to how to prevent damage to mulberry by frost 36,000 yen (1929).
- (b) Investigation as regards economics of the reeling industry 41,000 yen (1929).
- (c) Investigation as to an acceptable system of grading of raw silk 37,000 yen per year to the Raw Silk Association.
- (d) Investigation with a view to improvement of technique in reeling 100,000 yen (1929).
- (e) Investigation as to working of the Sericultural Law regulating the industry—1,000 yen.
- (f) Investigation of defects with a view to remedy—1,005 yen.
- (g) Investigation regarding machinery for raw silk testing 27,441 yen (1928).
- (h) Investigation as to methods of storing cocoons—37,000 yen (1927), 26,000 yen (1928).

China.—1. Arranged for advance of 30,00,000 dollars at 4 per cent. to the Silk Industry Bank which in turn made advance to producers (Silk Journal and Rayon World—March, 1931, page 26).

2. Arranged for research and experiment on Japanese model.

Help with regard to egg production.

France.—In order to encourage use of examined eggs Government gives a bonus of 2.40 Francs on each kilogram of green cocoons produced.

2. Egg-production by egg producing establishments is supervised by Government.

Spain.—A bounty of one peseta is paid for each ounce of examined egg produced and in addition transporting costs are refunded. (Silk Journal and Rayon World, May 20, page 21).

Japan.—The parent seed partly produced in experiment stations with the help of selected egg-producers is supplied free to egg-producers who produce seed for general rearers.

(2) The entire seed produced by egg-producers for general rearers is examined free by Government controlling stations 343 in number. The Imperial Government helped the provinces prefectures to the extent of about 173,250 yen, each province receiving about 3,766 yen. The total budget in all the provinces amounted to about 2,500,000 yen for this purpose.

Mysore.—1. Government supplies free of cost examined eggs to selected rearers who produce seed cocoons from examined eggs only.

2. Government gives half the cost of equipment of grainages and bonus at the rate of Rs. 5 per 1,000 layings of examined eggs produced and successfully reared by general rearers.

Kashmir.—Gives examined eggs free to all rearers.

Help as regards mulberry.

Japan.—The entire mulberry is grown from grafts. Nursery men (about 64,000) produced seedlings and grafts and sell them to farmers who grow mulberry for rearing of worms.

Research in every aspect of mulberry and its cultivation is carried out in each of the 76 experiment stations.

For nursery men:—

- (1) Gardens of stocks and scions are established for demonstration, stocks and scions are distributed, grafting methods are demonstrated and specialists are trained,
- (2) Lectures are arranged for grafting, nursery methods and prevention of diseases and pests,
- (3) Nursery owners are encouraged to form into societies in order to remove bad practices and defects and to prevent or remedy diseases and pests.

Sometimes a subsidy is given for this purpose.

France.—Half the cost of establishing a new plantation is paid—

Ottoman empire.—(Lefroy's Report, Vol. I, page 205).

(a) distributed plants and seed of mulberry free.

(b) gave bounties from 4th to 10th year after planting mulberry—

for 2/9 to 10/9 acres at about Rs. 30 per acre.

for 12/9 to 10/3 acres at about Rs. 24 per acre.

for 32/9 to 20/3 acres at about Rs. 18 per acre.

over 20/3 acres at about Rs. 162 in all.

Brazil.—(Lefroy's Report, Vol. 1, page 206)—gave about 8,500 Francs to silk producers who had 2,000 trees devoted to rearing of worms.

Kashmir.—Kashmir State maintains sixteen nurseries which grow seedlings which are distributed free when about four years old.

Since 1928-29 the State pays a bonus of four annas in the first year, two annas in the second and two annas in the third year for every tree successfully grown by the landowner (Tariff Board's Report, page 46).

Mysore.—Government maintains nurseries where seedlings and saplings are raised and supplied free to cultivators.

Government grants land for planting mulberry free of rent for 3 years and at $\frac{1}{2}$, $\frac{1}{3}$ and $\frac{1}{4}$ assessment in 4th, 5th and 6th years respectively, full assessment being charged from the 7th year.

Government is paying a bonus of two annas per tree successfully grown half the bonus in the third and half in the fifth year.

For farmers:—

- (1) There are specialists to guide and give advice about mulberry cultivation,
- (2) Subsidy is given for the undermentioned enterprises to municipal or rural agricultural committees, sericultural associations or other bodies, viz.—
 - (i) Distribution of young mulberry plants,
 - (ii) Establishment of mulberry gardens and nurseries for improving mulberry,
 - (iii) Replanting of old or decayed mulberry. Great stress is laid on this and the present budget for this subsidy is about yen 611,000,
 - (iv) Establishment of separate gardens for spring and autumn rearing,
 - (v) Improvement of medium trees in preference to bushes,
 - (vi) Establishment of late varieties in order to improve autumn rearing,
 - (vii) Employment of specialists for improving mulberry,
 - (viii) Establishment of demonstration gardens,
 - (ix) Exhibitions and shows.
- (3) Loans are granted at low rates of interest to improve gardens affected by pests, disease and frost. In 1927 to alleviate damage by frost a loan of yen 8,330,000 was issued.

Help as regards rearing or cocoon production.

Japan.—

- (1) There are specialists to give advice about rearing,
- (2) Subsidy is given to sericultural associations for—
 - (a) employing sericultural demonstrators,
 - (b) co-operative rearing of young worms and employing demonstrators for the purpose,
 - (c) establishment of co-operative mulberry gardens for co-operative rearing of young worms,
 - (d) equipment, lectures and demonstrators,
 - (e) purchase of suitable eggs co-operatively,
 - (f) co-operative sale of cocoons,

(g) arranging for drying and ware-housing cocoons and selling cocoons in the dried condition, Government giving 40 per cent. of the cost of drying plant and ware-house, and the budget for this purpose being 765,656 yen in 1929.

(h) Loans are granted at low rates of interest when the price of cocoons goes very low. In 1928 a loan of 50,000,000 yen was granted.

France.—Bounty of about Rs. 15 per maund of green cocoons (Lefroy's Report).

Ottoman empire—Bouns—

	Rs.	A.
(1) For 30 to 120 sq. metres of tray . . .	13	8
(2) For 121 to 300 sq. metres of tray . . .	40	8
(3) For 301 to 600 sq. metres of tray . . .	67	8
(4) For above 600 sq. metres of tray . . .	135	0

China Kwangtung.—In order to transfer the silkworm rearing from the delta where high humidity and dampness caused disease to worms, free land grants were made in northern parts on condition that the grantees devoted their entire time to sericulture (American Silk Journal, November, 1932).

Spain.—Under special regulations "Fomento de la Sericulture Nacional" shall acquire annually the whole of cocoons produced in Spain at a price remunerative to producers.

(Silk Journal and Rayon World, 20th May, 1935, page 21.)

Help as regards reeling.

(Lefroy's Report I, page 205.)

France.—400 francs bounty per basin and 200 francs bounty per basin for reeling double cocoons.

Japan.—Besides expenditure on research and experiment, Government helps the reeling industry whenever necessary so that the industry may be maintained. Very substantial help has been rendered since the onset of the depression in 1929. When stocks of raw silk began to accumulate in the hands of reelers owing to slump in United States of America Government decided to purchase and withdraw stocks from the market and hold them in custody. The price paid was at the rate of 1,250 yen per bale. By June, 1930, such withdrawals amounted to 112,000 bales. Out of this custody silk 3,188 bales were disposed of by August, 1931. The balance of 108,812 bales was sold to a private merchant in April, 1932, at 455 yen per bale. This sale was, however, cancelled later on and in June of the same year 98,310 bales returned into Government custody. Part of this stock has been gradually disposed of but in June, 1937, there was still about 49,000 bales in hand.

The raw silk price stabilisation plan in Japan is (i) to permit purchase and sale of raw silk at prices fixed by Government in order to avoid extraordinary rise or fall in price (maximum 950 yen and minimum 520 yen per bale), (ii) to withdraw the market and hold in custody raw silk when the price falls below the minimum price fixed.

The Act authorised Government to spend seven crore yen for the purpose. (American Silk and Rayon Journal, May, 1937, page 29).

Government gave a subsidy of 500,000 yen in order to open new markets for raw silk.

Legislation against fraud.

France.—There is a law to enforce labelling of—

- (1) fabrics woven only with silk from silkworms—as “silk”.
- (2) mixture containing 50 per cent. real silk—as “silk mixture”,
- (3) mixture of 25 per cent. silk with other material—as “cotton silk mixture”.

With less than 25 per cent. silk the word silk cannot be used.

(*American Silk and Rayon Journal*, July, 1934, page 45.)

Spain.—Regulations under which goods wholly of silk have to bear a special mark under name “Seda”.

(*Silk Journal and Rayon World*, May, 20, page 21).

Italy.—Law allowing the word “silk” to be used only in the case of fabrics woven with silk from silkworms.

(*Silk Journal and Rayon World*, April, 1931, page 32).

Legal protection for silk in different countries and also against too much weighting is described in *America Silk Journal*, March, 1932, page 32).

(v) A note on Railway Freight.

For purposes of carriage by rail silk goods are classified in different ways. The classifications are as follows. Rates vary according to class which as will be evident from description takes methods of packing into consideration.

<i>Class.</i>	<i>Description.</i>
(1) 6 . .	Raw silk or in cocoons.
(2) 4 . .	Silk waste.
(3) 9 . .	Silk manufactured (piecegoods silk, silk yarn, silk twist or thread prepared for manufacture).
(4) 6A . .	Silk piecegoods, cotton, woollen and artificial silk—not presspacked and not packed in boxes or cases.
(5) 4(A) (?) .	Silk piecegoods, cotton, woollen and artificial silk—presspacked and bound with iron bands and steel wire.
(6) 4(A) . .	Silk piecegoods, cotton, woollen and artificial silk—packed in boxes or cases.

At present we are concerned only with class 6—raw silk and cocoons. Raw silk has to be transported to the consuming centres from district to district in the province itself. It will be observed that there is no specification as regards packing in either case. Both these are, however, reckoned as “Exempted article” which means that they must be insured if the value exceeds Rs. 100 unless Risk Note Form “X” is executed which absolves the railway of all liability.

The freights per maund and per lb. of raw silk from Malda and Jangipur to different consuming centres are shown in the statement appended herewith. In this connection it may be remembered that steamer freight from Japan to a port in India works out to about a pie per lb. Bengal silk therefore suffers from a great hardship when it has to compete with Japanese silk in Madras, Bombay and the Punjab. Kashmir is practically in the same predicament so far as Madras and Bombay markets are concerned and Mysore in respect of Northern Indian markets.

Under the present circumstances it is essential to lower the freights. It will be observed that there is hardly such difference between parcel and goods rates in some cases. In order to help the industry both these rates should be lowered considerably.

(vi) *Rate of silk yarn or raw silk per maund and per lb. (1 maund=82 lbs.)*

From Jangipur to—	Freight per maund.		Freight per lbs.
	By goods.	By parcel.	By parcel.
	Rs. A. P.	Rs. A.	As. P.
Belgaum	9 8 0	11 10	2 3·22
Conjeeveram	8 0 8	10 7	2 0·44
Madras	7 13 2	10 0	1 11·41
Ahmednagar	8 2 11	10 7	2 0·44
Bombay	8 11 2	11 1	2 1·90
Nagpur	5 10 11	7 13	1 6·29
Kumbakonam	8 14 2	11 8	2 2·92
Bagalkot	9 1 4	11 8	2 2·92
Katgiri	9 0 6	11 8	2 2·92
Satara Road	10 9 0	12 6	2 4·97
Sholapur	9 14 3	11 12	2 3·51

(vii) *Rate of silk yarn or raw silk per maund and per lb. (1 maund=82 lbs.)*

From Mulda to—	Freight per maund.		Freight per lbs.
	By goods.	By parcel.	By parcel.
	Rs. A. P.	Rs. A.	As. P.
Berhampore Ganjam	2 9 10	4 2	0 9·66
Cuttack	2 1 6	3 6	0 7·90
Nagpur	3 15 6	5 12	1 1·46
Bhandara Road	3 8 3	5 11	1 1·32
Umrer	3 8 3	5 13	1 1·61
Conjeeveram	5 9 2	7 15	1 6·59
Kumbakeva	6 5 4	8 8	1 7·90
Ayyarpat	6 6 4	8 8	1 7·90
Passupati Kaval . . . .	...	8 8	1 7·90
Tanjore	6 7 1	11 15	2 3·95
Trichi town . . . .	...	11 15	2 3·95
Trichinopoly	6 6 6	...	...
Trichinopoly Fort . . . .	...	11 15	2 3·95
Salam	6 2 6	12 6	2 4·97
Arni Road	5 11 11	11 11	2 3·36
Benares Cantt. . . .	1 12 0	3 15	0 9·21
Julundar City	4 7 10	8 11	1 8·34
Amritsar	4 11 4	9 12	1 10·83
Multan City	9 9 10	10 14	2 1·46
Peshawar City	6 1 3	11 8	2 2·92
Kasimbazar	0 7 2	1 7	0 3·37
Chittagong	2 3 5	4 0	0 9·37
Vishnupur	1 8 7	3 8	0 8·19
Rampurhat	0 13 7	2 14	0 6·73
Gauhati	1 11 1	3 3	0 7·46
Manipur Road	2 5 7	5 6	1 0·58

(17) *Statements received from several rearers, reelers and weavers in Bengal.*

(i) *Percentage of total silk content of green cocoons weighed on the fourth day of spinning for different seasons throughout the year as reared at Ballygunge.*

	Minimum percentage.	Maximum Percentage.	Average for the year.
Nistid	11·6	14·3	12·9
Nismo	12·2	14·3	13·1
Itan a new race being fixed	11·2	16·1	13
Nistari and Chhotopohu under General Rearing .	9	11	9·5

(ii) *Account given by a Malda Rearer before the Tariff Board at Malda, on 20th November, 1938.*

Expenditure for 1 bigha (½ acre) of mulberry land:—

	Rs. a.
Rent of land	1 8
Digging and weeding 40 men at As. 2·6 each	6 4
Murrah cutting 4 men at As. 4 each	1 0
Ploughing	0 8
Fencing and mending sides	2 0
Total	11 4

for routine cultivation works.

Expected outturn from such a plot without manuring about 20 maunds with twigs only per year.

Manure:—

	Rs.
Spreading earth or silt	5
Cowdung or cakes (oil)	7
Total	12

Expected outturn after manuring would come to 60 maunds with twigs per year as detailed:—

	Maunds with twigs.
Agrahayani (November) crop	15
Choitra (March-April) crop	10
Jaistha-Asar (June) crop	15
Bhaduri (August)	20
Total	60

Total cost for one bigha is thus:—

Cultivation cost	11 4
Manurial cost	12 0
Total	23 4

with an yield of upto 60 maunds of leaves with twigs.

(iii) *Account given by a Malda rearer before the Tariff Board at Malda on 20th November 1938.*

REARING OF SILKWORMS.

Calculated on the basis of 1 ghora, i.e., 16 trays of worms:—

Name of crop.	Expected consumption of mulberry leaves with stem.		Cost thereof.	Approximate outturn of cocoons.
	Mds.			Mds. sr.
Agrahayami .	25	at 1½ mds. per rupee	20 0	1 0
Choitra .	25	at 1½ mds. per rupee	20 0	1 0
Jaistha-Asar .	22	at 3 mds. per rupee	7 5	0 20
Bhadra .	22	at 3 mds. per rupee	7 5	0 30
Total .			54 10	3 10

Other expenses—

Cost of seed cocoons 4 seers at Rs. 1-8 per seer	6 0
Cutting and carrying mulberry L. S.	8 0
Miscellaneous cost L. S.	8 0
Dallas, chandrakies, etc. (appliances) L. S.	2 0
Total .	78 10

The actual cost per maund of cocoons comes to Rs. 24-5 only.

(iv) *Statement given by Babu Surendra Nath Sarkar, weaver before the Tariff Board at Malda, on 20th November, 1938.*

For an ordinary Sibganj Sari—5 yards × 44"—

	Rs. a.
5 ch. (10 oz.) raw silk at Rs. 6-4 per lb.	3 14
Cost of all operations at present	0 14
Total .	4 10

The Marwari merchant pays for it Rs. 5-4 to Rs. 5-8.

(v) *Statement of a reeler (Haji Amu) of Shershashi, Malda, before the Tariff Board at Malda, on 20th November, 1938.*

In the Bhadra (September) crop which was spoilt by floods in Malda, I purchased Nistari cocoons at an average price of Rs. 25 per maund, i.e., 5 annas per lb.), with the hope of making profit as the crop was short.

From a maund of cocoons the outturn in raw silk was 2 seers 6 chattaks (i.e., 4½ lbs. raw silk from 80 lbs. cocoons).

The rendita was 17.

The raw silk was better than Bharna but inferior to Tana.

The loss and profit are shown below per maund of cocoons:—

	Rs. A.
Cocoons	25 0
Labour and miscellaneous charges—Rs. 4. Usually the sale price of waste meets the cost of fuel, but as the price of waste silk fell from about Rs. 20 to about Rs. 12 per maund about 10 annas more had to be added to the above charges on account of fuel and thus the production cost came up to	4 10
Total works cost	29 10

or Rs. 6-4 per lb.

The silk was sold to Marwari merchants at Rs. 5-8 per lb.



सत्यमेव जयते

(i) Quality tests carried out in the Bengal Government Silk Conditioning House—contd.

Regis- tration No.	Description.	Neat- ness (by inspec- tion).	Average size denier.	Size devia- tion.	Size range (denier).	Strength grams per denier.	Elon- gation. per hour.	Winding breaks per hour.	Grade.	Boil- off loss.	Remarks.
		12	13	14	15	16	17	18	19	20	21
		Per cent.					Per cent.			Per cent.	
4	BENGAL—contd. Nistari (Jangipore) Moniruddin Ahmed.	80	17.5	0.95	16.5—20.5	3	21.5	6	G	..	Major tests corre- sponds to Grade E lowered two grades due to inferior winding quality. Strength also falls short of Grade E.
6	Nistari Yellow New Pedal Machine.	89	25	2	22—31.5	3	20.4	12 above	G	..	
16	Nistari, Malka 2600 Tana, Country Garka.	74	13.5	0.67	12—15.5	3.2	18.25	100	G	..	
21	Malka Nistari. Bedded for Mr. Hanuman Das Sarda, Country Charka.	84	18.5	1.8	14—19	3.3	18.5	60	G	19.2	

(i) Quality tests carried out in the Bengal Government Silk Conditioning House—contd.

Regis- tration No.	Description.	No. of hanks tested.	Colour.	Lustre.	Feel.	Nature.	Gum.	Evenness-Seripane.				Clean- ness (by count) Rev. on—.
								Panels.		Low panels.		
								No.	Average.	No.	Average.	
		1	2	3	4	5	6	7	8	9	10	11
									Per cent.		Per cent.	Per cent.
	RECEIVED THROUGH U. S. A. TRADE COMMISSIONER.											
23	Japanese cherry . . .	2	White	Good	Smooth	Medium	Slight	10	82	2	70	82
24	Ukawa & Company (Japanese) .	2	Yellow	"	"	"	"	10	82	2	72	81
25	Kanebo Filature (Japanese) .	2	White	Very good.	"	"	"	10	82	2	75	80
26	China Young Tai Filature .	2	"	Good	"	"	"	10	80	2	72	85
29	IMPORTED TO INDIA. Bwzen Seishisho Star (Japanese)	1	White	Good	Smooth	Hard	Slight	10	88	2	72	83

(i) *Quality tests carried out in the Bengal Government Silk Conditioning House—contd.*

Regis- tration No.	Description.	No. of hanks tested.	Colour.	Lustre.	Feel.	Nature.	Gum.	Evenness-Seriplane.				Clean- ness (by count) Rev. on—.
								Panela.		Low panels.		
								No.	Average.	No.	Average.	
								Per cent.	Per cent.	Per cent.	Per cent.	
		1	2	3	4	5	6	7	8	9	10	11
	JAMMU.											
43	Jammu Neel (Bagdad)	2	White full.	Fair	Smooth	Medium	Slight	10	67	2	58	79
44	Jammu Neel, Chinese	2	"	Good	"	"	"	10	69	2	58	84
45	Bagdad	2	"	Fair	"	Hard	"	10	74	2	68	86
46	Neel Cross, Chinese	2	Yellow	Good	"	Medium	"	10	67	2	55	83
47	No. 1, Chinese	2	White	"	"	"	"	10	69	2	58	82

(i) Quality tests carried out in the Bengal Government Silk Conditioning House—contd.

Regis- tration No.	Description.	Neat- ness (by inspec- tion).	Average size denier.	Size devia- tion.	Size range (denier).	Strength grams per denier.	Elon- gation. per hour.	Winding breaks per hour.	Grade.	Boil- off loss.	Remarks.
		12	13	14	15	16	17	18	19	20	21
		Per cent.					Per cent.			Per cent.	
43	JAMMU—contd. Jammu Neel (Bagdad)	80	14	0.8	12.5—16.5	3.2	17.5	10	G	21	Major tests corre- sponds to Grade F. Winding quali- ty very bad.
44	Jammu Neel, Chinese	81	13	0.8	12—14.5	3.4	18.5	4	G	17	
45	Bagdad	83.5	13.5	0.78	12—15.5	3.4	18	7	G	..	But for winding defect the Grade is E.
46	Neel Cross, Chinese	66	15	0.8	13—17	3.2	18	2	G	..	Comp. per cent. falls short.
47	No. 1, Chinese	79	13.5	0.52	12.5—14.5	3.3	17	6	G	18.3	Grade F if not penalised for infe- rior winding qua- lity.

(i) Quality tests carried out in the Bengal Government Silk Conditioning House—contd.

Regis- tration No.	Description.	Neat- ness (by inspec- tion).	Average size denier.	Size devia- tion.	Size range (denier).	Strength grams per denier.	Elon- gation. per hour.	Winding breaks per hour.	Grade.	Boil- off loss.	Remarks.
		12	13	14	15	16	17	18	19	20	21
	JAMMU—contd.	Per cent.					Per cent.			Per cent.	
48	No. 1, Cross Chinese	83	15.5	1.1	13—17.5	3.2	19	1	F	..	Low panel per cent. too small.
49	No. 1, Bagdad White	85	19	0.82	17—21.5	3.4	18	1	D	..	
53	Neel Cross, Chinese	81	22	1.05	20—25.5	3.3	17.5	0	C	..	
	MYSORE.										
55	The Mysore Silk Filature	80	17	0.5	16—19	3.47	18	3	G	..	Grade E if not penalised for infe- rior winding qua- lity.
56	Ditto	75	22.5	1.2	20—25	3.3	17	5	G	21.6	Grade F if not penalised for infe- rior winding qua- lity.
57	Ditto	88	31	0.8	29—33.5	3.5	19.6	5	G	..	Grade F if not penalised for infe- rior winding qua- lity.

(i) *Quality tests carried out in the Bengal Government Silk Conditioning House—contd.*

Regis- tration No.	Description.	No. of barks tested.	Colour.	Lustre.	Feel.	Nature.	Gum.	Evenness-Scriptane.				Clean- ness (by count) Rev. on—.
								Panels.		Low panels.		
								No.	Average.	No.	Average.	
		1	2	3	4	5	6	7	8	9	10	11
									Per cent.		Per cent.	Per cent.
58	MYSORE— <i>contd.</i> Mysore Improved Charka	1	White greenish	Good	Smooth	Medium	Slight	5	69	1	60	84
59	Mysore Charka Mambali, 1	1	White slightly greenish.	Fair	"	Hard	"	5	61	1	55	84
67	BENGAL. Nistid Yellow Improved Pedal Machine, Peddie Reeling In- stitute, Maldah.	5	Yellow	Good	Smooth	Medium	"	10	78	2	68	80
68	Nistid Yellow Japanese Filature Machine, Peddie Reeling In- stitute, Maldah.	2	"	"	"	"	"	10	85	2	80	83

(i) Quality tests carried out in the Bengal Government Silk Conditioning House—contd.

Regis- tration No.	Description.	Neat- ness (by inspec- tion).	Average size denier.	Size devia- tion.	Size range (denier).	Strength grams per denier.	Elon- gation. per hour.	Winding breaks Grade.	Boil- off loss.	Remarks.	
		12	13	14	15	16	17	18	19	20	21
		Per cent.					Per cent.			Per cent.	
58	MYSORE—contd. Mysore Improved Charka	90	31.5	1.6	28.5—36	3.54	18.75	8	G	..	Grade F if not penalised for infe- rior winding qua- lity.
59	Mysore Charka Mambali, 1	75	22	1.6	19—26.5	3	21.5	3	G	24.2	
	BENGAL.										
67	Nistid Yellow Improved Pedal Machine, Peddie Reeling In- stitute, Maddah.	87	24.5	2.8	19—37	3.3	21	12	G	..	
68	Nistid Yellow Japanese Flatire Machine, Peddie Reeling In- stitute, Maddah.	88	25.6	4.9	22.5—29	3.3	21.6	2	E	20	Major test cor- sponds to Grade A strength defi- ciency lowers to C and inferior wind- ing lowers to E.

(i) Quality tests carried out in the Bengal Government Silk Conditioning House—concd.

Regis- tration No.	Description.	Neat- ness (by inspec- tion).	Average size denier.	Size devia- tion.	Size range (denier).	Strength grams per denier.	Elon- gation. per hour.	Winding breaks per hour.	Grade.	Boil- off loss.	Remarks.
		12	13	14	15	16	17	18	19	20	21
		Per cent.					Per cent.			Per cent.	
73	BENGAL—concd. Nistari Yellow Improved Pedal Machine, Peddie Reeling In- stitute, Maldah.	82	28.5	..	26.5—34	3.3	16.75	19	G	20.7	
74	KASHMIR. Kashmir Raw Silk, Tulip, Extra Special.	95	56	1.8	50—64	3.7	23	0	2A	25	Size range lowers by one grade otherwise 3A.
75	Kashmir Raw Silk, Iris . .	86	27	1.8	23.5—31	3.46	22	2	G	..	Inferior winding reduces the Grade to G otherwise Grade D.
76	Kashmir Raw Silk, Lotus.	87	18.5	1.1	16—21.5	3.8	21	1	C	24	

(ii)—Boil-off Tests Carried out in Bengal Government Silk Conditioning House.

Registration No.	Description.	Percentage of loss.	Remarks.
68	Nistid Yellow—reeled in Japanese Filature machine at Peddie Silk Reeling Institute, Malda.	20	Boiled with Marsellies Olive Soap 30 per cent on the weight of silk and 100 times water —, two baths successively one hour each.
73	Nistari Yellow—reeled in Peddie Silk Reeling Institute, Malda Ashibumi.	20.7	Ditto.
74	Kashmir Raw Silk—Tulip Extra special.	25 per cent.	Ditto.
76	Kashmir Raw Silk—Lotus 13-15 denier.	24 per cent.	Ditto.

(iii) Note on tests of raw silk and degumming carried out in the Bengal Government Silk Conditioning House.

It has not been possible to carry out tests of all the samples of raw silk supplied by the Tariff Board within the short period of time available. Tests have, however, been carried out of practically all the finer deniers and give a general comparative idea of the qualities of Bengal, Mysore, Kashmir, Jaumu and Japanese raw silks as they are available at present.

Tests of the samples not done yet will be carried out and the results will be available to the parties concerned.

One would ordinarily suppose that Kashmir and Jaumu silks would be similar in quality. The tests, however, reveal marked differences especially in the inherent properties of strength (i.e., capacity to support weight before breaking), elongation (i.e., stretch before breaking) and boil-off (i.e., loss in degumming).

2. The quality tests are calculated and rated for grading according to the latest standards adopted in Japan and also followed in America. This information has been received just now and the ratings are calculated and accordingly revised. The grades of raw silk according to quality from the highest to the lowest are marked as 3A, 2A, A, B, C, D, E, F and G. The major tests are for evenness average according to Seriplane, low, i.e., the inferior panels in the series being taken into consideration and for cleanness and neatness. The auxiliary tests for size (i.e., thickness) deviation, strength, elongation and winding breaks are also considered for fixing the grade. It will be observed that the highest quality silk is produced in India. The tests carried out, however, are from sample skeins. The requirement is production and supply of the same uniform quality raw silk in lots (1,330 lbs.) and bales (133 lbs.). If this can be brought about by centralised reeling in the different producing areas and the lots and bales marketed with Conditioning House certificates there is no reason why Indian raw silk should not command the best market.

3. Reading of the tests:—

(a) Degumming.

Kashmir loses most, i.e., 24 to 25 per cent. Mysore comes next with about 22 to 24 per cent. Bengal and Jaumu are nearly equal with about 17 to 22 per cent.

Several samples of Japanese showed about 18 to 19 per cent. though one sample lost 24 per cent. Evidently all silks of Japan are not equal.

(b) *Strength.*

Kashmir is the best registered about 3.5 to 3.8 per cent. grammes per denier.

The Chinese sample registers 3.6 grammes per denier.

Next comes Japanese with 3.2 to 3.5 grammes per denier.

Mysore is nearly equal to Japanese with 3 to 3.5 grammes per denier. Bengal Nistid and Jammu are practically equal with 3 to 3.4 grammes per denier.

Bengal Nistari is slightly weaker ranging from about 2.9 to 3.3 grammes per denier.

(c) *Elongation.*

Kashmir is the best with about 21 to 23 per cent.

Next comes Bengal Nistid with about 21 to 22 per cent. Nistari is slightly less being about 18 to 21 per cent. Mysore is about the same.

Japanese and Chinese are about equal with about 18 to 20 per cent.

Jammu comes lowest with about 17 to 19 per cent.

(d) *Evenness.*

This is of course the result of reeling. Kashmir Extra special is really very high grade. Apart from the above one sample Japan certainly gives the best average, then comes Kashmir, then Bengal Peddie Reeling Institute Japanese Filature machine, then Jammu and last of all Mysore Filature and Mysore and Bengal charka. It is clear that up-to-date filature machinery certainly improves the major qualities of raw silk.

(e) Cleanness and neatness generally seem to follow evenness.

16. Government of Madras.

(1) *Letter from the Secretary to the Government of Madras, Development Department, No. 2720-II/38-8, dated the 22nd July, 1938.*

TARIFF BOARD—SERICULTURAL ENQUIRY—HANDLOOM INDUSTRY—QUESTIONNAIRE FOR LOCAL GOVERNMENTS.

With reference to your letter No. 510, dated the 14th May, 1938, I am directed to forward six copies of the replies to the questionnaire on the above subject.

1. (a) In South India handloom weaving comprises the manufacture of cloths, durries, mats, carpets, druggets—made from cotton silk, art silk, mixtures of cotton, silk and art silk, spun silk, wool, coir and kora grass. The various classes of people engaged in the industry from time immemorial are Devangas, Sowrasthas, Sengunthars, Kaikolas, Padmasalis, Muhamadans and depressed classes. Accurate figures relating to the number of "weavers" engaged in the handloom weaving industry in this province are not available. The only method of arriving at this figure is from the number of handlooms at work in this province. In the last Census of 1931 this number was shown as 193,174. The Census figures, however,

appear to be an under-estimate, as statistics collected by the Revenue Authorities during the year 1934 and 1935 showed the total number of handlooms engaged in weaving as 314,959. The total number of handloom weavers in South India in 1935 may therefore be taken as 314,959, although in many families more than one member weave on a loom.

(i) *Weavers engaged in weaving pure silk goods only.*—According to the last census of 1931, the number of persons actually engaged in silk spinning and weaving was 34,489. The number of looms engaged in weaving pure silk goods is not given in the census report; but according to the statistics collected by the Revenue Authorities during the years 1934 and 1935, the number was 23,236. Hence, the number of weavers engaged in silk weaving in South India in 1935 may be taken as 23,236. Information as to the number of weavers engaged “at present” in weaving pure silk goods is not available. It may be pointed out that a silk weaver does not necessarily weave only pure silk cloth throughout the year, but is apt to change from one class of yarn to another according to the seasonal demand.

(ii) *Weavers engaged in weaving both cotton and silk mixed goods (i.e., in making cotton piecegoods with silk borders).*—Figures of the number of weavers engaged at present in weaving cotton piecegoods with silk borders are not separately available. Besides, weavers of cotton piecegoods with silk borders do not confine their attention to such work during the whole year.

(iii) *Weavers engaged in weaving cotton goods only.*—According to the last census of 1931, the number of persons shown as following the occupation of cotton spinning, sizing and weaving was 486,248. Figures relating to the number of looms engaged in cotton weaving have not, however, been indicated. But according to the statistics collected by the Revenue Authorities during the years 1934 and 1935, the number of looms engaged in weaving cotton cloths was 245,337 and in weaving cotton durrries 7,887. Hence the number of weavers engaged in cotton weaving in South India in 1935 may be taken as 245,337. Information regarding the number of weavers engaged “at present” in weaving cotton goods is not available.

1. (b) As a survey of handloom weaving was not carried out in April, 1934, nor in 1938, it is difficult to state whether there has been any increase in the number of weavers in this Presidency. But there is no reason to think that there has been any decline in the number of looms.

2. Silk weavers obtain their supply of raw materials from various sources according to the class of weavers. Generally speaking, there are three classes of weavers—(a) independent weavers who weave in their own homes and purchase their raw material and market the product themselves; (b) weavers who work in their own homes at piece work rates with raw materials provided by the merchants for whom they work for the time being, and (c) cooly weavers working in the homes of “master” weavers.

In Kollegal which is the largest silk producing area in this province, the independent silk weavers purchase their requirements of local raw silk direct from cottage reelers and of imported silk from silk merchants. In other parts of the Madras Province, the independent silk weavers get their supply of raw materials chiefly from silk merchants. The latter in their turn obtain their supply from Mysore or Kollegal, and from importers of China and Japan silk. Kashmir silk is used when the price is favourable. Bengal silk is not used at present. Weavers who work for the merchants receive raw materials from an return the finished cloth to the merchants. The master weavers also obtain their supply of raw materials from silk merchants.

Raw silk, silk yarn and gold thread are imported as well as manufactured in India. Spun silk, art silk and staple fibre yarn are imported.

As regards prices of raw materials required by the silk weavers, it may be stated that they vary from time to time according to place, quality

and methods of sale. Approximate prices of raw materials ruling during the month of June, 1938, are furnished below:—

	Denier.	Price per lb.	
		Rs. A. P.	Rs. A.
Raw silk—			
Improved country reeled Mysore variety silk	28/30	5 0 0 to 5 8	
Filature reeled Mysore variety silk	28/30	6 4 0 to 6 8	
Canton filature silk	20/22	4 12 0 to 4 14	
Japanese filature silk	13/15	5 9 0 to 5 12	
Kashmir filature silk	13/15	6 8 0 to 6 10	
Bengal filature silk	Not sold at present.		
Silk yarn—			
(a) Twisted silk in hank form—			
Improved country reeled Mysore variety silk twisted in cottages in this Province	66/60	6 0 0 to 6 8 (Org.).	5 6 0 to 5 14 (Tram).
Flature reeled Mysore variety silk twisted in factories in this province	28/30	7 8 0 to 7 12 (Org.).	6 10 0 to 6 14 (Tram).
Japanese filature silk twisted in factories in this Province	28/30	6 12 0 to 7 0 (Org.).	6 0 0 to 6 2 (Tram).
Japanese imported twisted silk	28/30	6 6 0 to 6 8 (Org.).	
(b) Twisted silk in warp form—			
Surat warp—dyed—Japanese	...	9 2 0	
Peddapuram warp—dyed—Japanese . . . . .	...	9 0 0	
Japanese warp—not dyed . . . . .	...	7 0 0	
Art silk—			
Japanese	150	0 13 0 to 0 14	
Italian	150	0 12 6 to 0 13	
Staple fibre yarn—			
English yarn	32/36	1 4 0 to 1 6	
Japanese yarn	32/40	0 13 0 to 0 14	
Spun silk—			
Japanese spun silk (Toyo)—Count	2/210	5 6 0 to 5 8	
Italian spun silk (Canton) . . . . .	...	5 4 0 to 5 6	

Gold thread—

Surat gold thread—2,000 yds. per oz.—Rs. 24 to Rs. 26-8 per maro. of 21 tolas.

Benares gold thread—2,000 yds. per oz.—Not sold at present.

Bangalore gold thread—2,000 yds. per oz.—Factory closed.

French gold thread—2,000 yds. per oz.—Not sold now.

3. Yarn spun from staple fibre has been only recently introduced amongst the handloom weavers in this province. It is, however, not used in conjunction with silk.

4. It is extremely doubtful whether staple fibre yarn will replace pure silk. Merchants state that cloth made from staple fibre yarn is likely to compete with cotton and art silk fabrics.

5. (1) *Twisting and winding.*—Winding and twisting of raw silk is generally carried out in cottages by women and children of the weaver's family during spare hours. There are, however, three power silk throwing concerns in the Province. The one at Kollegal produces and supplies thrown silk for the weavers. The other two factories at Peddapuram (East Godavari district) and Rayadrug (Bellary district) twist silk for weaving on their own looms.

(2) *Boiling off.*

(3) *Dyeing.*—Boiling off and dyeing operations are generally carried out in cottages by separate class of dyers for silk merchants. Master weavers and independent weavers also undertake dyeing for their own use.

(4) *Doubling and preparing the warp.*—The weaver does not prepare the warp himself. Warping is carried out in cottages by men or women of weaving community.

6. Indian and imported silk are used both as warp and weft. Warp and weft prepared from Mysore silk is used in the manufacture of expensive but durable silk sarees. Warp prepared from imported silk and weft prepared from Mysore silk is used for medium qualities of sarees. Warp and weft prepared from imported silk is used for silk sarees, dhoties, shirtings, blouse materials, turban cloths and other cheap varieties of silk goods.

7. The position is just the same as was found by the last Tariff Board, the industry still being in the hands of merchants who finance it. Part of the proceeds of the protective duties should be made available for the organisation of co-operative societies, the financing of which is at present attended with difficulty.

8. The class of silk goods produced in this Province are sarees, blouse materials, dhoties, angavastrans, rumals, turban cloths, kailies, suiting, shirtings and silk brocades.

These varieties of cloths continue to be woven in this province. It is difficult to state the extent to which indigenous silk cloths compete in the market with imported silk piecegoods. But it is reported that the competition of imported silk goods is mainly in suitings, shirtings, blouse materials, sarees and silk brocades.

9. It is not possible to give any indication of the production of cloths made on handlooms in this province from each of the materials mentioned in question 2, nor is there any means of ascertaining the consumption of of raw material.

10. The time taken by a weaver to produce a finished article varies with the stage of commencement of raw material, the class of silk (Mysore or imported silk), quality particulars of cloth (width, ends, picks, count of warp and weft); class of fabric (plain, solid border, figure in border, or figure in border and body, with or without lace); the nature of appliance

used (hand thrown slay, fly shuttle slay, dobby, draw boy harness, warping mills or peg warping board) whether the warp has to be prepared by the weaver or is ready made and the number of persons in the weaver's family engaged in the various preparatory processes.

The following statement will show the approximate time taken by a weaver to produce different classes of fabrics commencing from the stage of ready made warps to be finished product:—

Class.	Quality of silk used.	Particulars.	Weight.	Time taken.*
			ozs.	(Days.)
Plain sarree	Mysore	45" width 8 yds. length.	18	6½ to 7
Sarree with gold thread figure in border.	Japanese	Ditto	18	9 to 10
Sarree solid border with gold thread.	Mysore	Ditto	17	13 to 14
Sarree brocade with gold thread.	Japanese	Ditto	22	20 to 24

11. The silk generally used by handloom weavers is of the Mysore or Kollegal variety and imported Chinese and Japanese. Kashmir silk is also used to some extent if prices are favourable. Bengal silk is not used at present. Figures regarding the aggregate quantity of silk consumed by the handloom weavers under each of the above classes are not available. Figures relating to the quantity of silk required for each category are given in answer to question 28.

12. Fabrics woven on handlooms are not of a standard quality. The price varies with the quality particulars such as width, length, count of warp and weft, ends and picks, as also the kind of yarn, nature of dyes and place of manufacture. Approximate prices of four different types of silk sarrees are furnished below:—

Classes.	Dimensions and weight.	Price.
		Rs. A.
Plain sarree	As in answer to question 10.	14 0
Sarree with gold thread figure in border	Do.	22 0
Sarree—		
Solid border	Do.	21 4
Brocade (with gold thread)	Do.	47 0

13. It is not possible to give any definite indication of the value of silk fabrics produced in this Province, as exact figures in regard to the consumption of silk by the handloom weavers are not available.

* For drawing threads through boulds reed, dressing and weaving (women preparing weft).

14. In this province, spun silk of the coarse variety is generally used for suiting cloth, cushion and sofa cloths, while fine variety is used for saris, shirtings, angavastranis and lungies.

15. The information is given in answer to question 2.

16. In some cases merchants supply silk to independent weavers on credit. The amount of credit depends upon the reliability of the weaver and extends up to Rs. 50. Generally, one month is allowed for payment.

17. Silk merchants sell raw silk either to independent weavers and to master weavers, or to local retail dealers. There are no importers agents and they sell through retailers.

18. In point of lustre, elasticity and dyeing qualities, filature silk of the Mysore variety is superior to imported silk. But the loss in degumming is slightly greater in the case of the Mysore variety.

Cloth made from the Mysore variety of silk contracts to a greater extent than cloth made from Japanese silk but its wearing and washing qualities are superior. Silk merchants appreciate these qualities of Mysore silk, but at the same time they feel that cottage reeled silk is not as uniform and clean as imported silk and does not unwind freely.

19. Indian raw silk reeled in power filatures is sorted and graded, but cottage reeled silk is not graded. The introduction of a system of sorting and grading is likely to result in increased consumption of Indian silk.

20. Generally speaking there are no middlemen as distinguished from silk merchants who supply raw material to the weaver working for them, as indicated in answers to questions 2 and 16. No special conditions are imposed by middlemen on weavers except in regard to the fixing of quality particulars, weight and design of cloth, wages for weaving and time limit.

21. The selection of a particular class of silk by the handloom weaver or master weaver or merchant depends mainly upon the price of raw silk. The continued depression in the trade has not encouraged the putting forth of any serious effort in the direction suggested by the Tariff Board.

22. In recent years, the quality of cottage reeled silk has been improved to some extent. But such silk is not re-reeled owing to the additional expense involved.

23. There is no definite evidence to presume that artificial silk has to a marked degree replaced silk. It is understood that art silk yarn has replaced cotton yarn rather than silk yarn.

24. The present duty on spun silk is 25 per cent. *ad valorem* plus 14 annas per lb. and this appears to be inadequate to protect the sericultural industry of the province. Spun silk still continues to compete with raw silk to a great extent.

25. Private silk merchants are unwilling to disclose their cost of production and other details, but it is reported that there has been a fall in the cost and sale price as also in the wages paid to weavers since 1st April, 1934. There are two silk weavers' co-operative societies in this province, but as neither of them is working satisfactorily, it is not possible to supply any reliable information on the points raised.

26. As the number of handlooms engaged in silk weaving has not shown generally any marked decline, it may be assumed that the present duties on imported silk fabrics, art silk goods and mixtures have been of some benefit to the handloom weavers. A higher protective duty on silk fabrics would however, give considerable impetus both to the sericultural and the handloom weaving industry of the province.

27. No new factories have come into existence in recent years. But a few new warp and weft preparation factories have been started in the last few years and these concerns work with imported silk.

28. The cost of manufacture varies considerably as stated in answer to question 10. Approximate cost of four classes of silk sarees is furnished below :—

	Plain saree.	Shar with figure in border.	Saree solid border.	Saree brocade.
	Rs. A.	Rs. A.	Rs. A.	Rs. A.
1. Raw material (silk) . . .	8 2	7 0	8 2	7 0
Raw material (gold thread) . . .	...	6 0	3 0	18 0
2. Twisting and winding charges . . .	1 0	1 0	1 0	1 0
3. Dyeing charges	0 12	0 12	0 12	0 12
4. Weaving charges—				
(a) Warp and weft prepara- tion	0 4	0 4	0 4	0 4
(b) Weaving	3 8	5 0	6 0	15 0
5. Cost of labour . . . . .	...	...	...	...
6. Other charges . . . . .	...	1 0	1 0	2 4

How are the weavers paid, per day or per piece?

At what rates are they paid?

The majority of the handloom weavers are paid per piece. The rates vary in different localities, according to class of yarn employed, quality particulars, class of fabrics, etc. The wages for weaving are given in answer to question 28.

29. There are only two silk weavers' co-operative societies in this province, namely at Dharmavaram and Koyampalli. The object of the societies is to assist the weavers to obtain their supply of raw materials and other requisites and also advance money for wages. These societies are not, however, working at present.

30. The silk goods produced in this Province are mostly marketed at the principal towns. The cloth merchants in these towns purchase the goods either through their own agents or through merchants at the place of manufacture. Some merchants own shops in the towns as well as in the weaving centres. Silk goods are also exported to Mysore, Bombay, Calcutta, Punjab, Delhi, Rangoon and Ceylon. The weavers do not bear the transport charges. They are met by the merchants who take over the cloths and market them.

31. In the absence of figures regarding consumption of raw silk in this Province for a number of years, it is difficult to say whether there has been any increase or decrease in the demand for silk. But judging from the quantity of raw silk and piecegoods imported it would appear that the demand for natural silk is on the increase.

32. The sources of supply of raw silk have already been indicated in answer to question No. 2. Figures regarding the consumption of raw silk of all classes—Indian and imported—in the various markets in this Province are not available owing to the discontinuance of railborne trade statistics relating to silk.

33. There is no evidence of any such turn over as the protection granted is inadequate.

34. There is no reason to believe that the protection granted to the sericultural industry has so far adversely affected the handloom weaving industry of the province.

If further protection is granted to the sericultural industry, it will be absolutely necessary to increase the duty on imported cloths in order to protect the silk handloom industry. If an adequate share of the proceeds is transferred to the provinces for organising silk weavers' co-operative societies, the handloom weaving industry would be greatly stimulated.

(2) Letter No. 2720-II/38-9, dated the 29th July, 1938, from the Secretary to Government, Development Department, Madras.

SERICULTURAL ENQUIRY—GENERAL QUESTIONNAIRE.

With reference to your letter No. 544, dated the 24th May, 1938, I am directed to forward six copies of the replies to the questionnaire on the above subject. These replies and also the replies to the questionnaire regarding handloom industry are of the Director of Industries but the Government of Madras are in general agreement with them.

2. With reference to the concluding sentence of your letter No. 510, dated the 14th May, 1938, and in continuation of my letter No. 2720-II/38-8, dated the 22nd July, 1938, I am directed to append* below a list of the important handloom areas in this Presidency together with a list of merchants who supplied information in regard to the latest prices of raw materials and wages for the various operations involved in silk weaving, *vide* answer to question No. 28 relating to cost of manufacture of typical articles of silk cloth.

*APPENDIX.

List of merchants.

Name of area.	Name.
Little Conjeevaram, Conjeevaram, Chingleput District.	Messrs. Srinivas & Co.
Kumbakonam, Tanjore District	Sri Panda Rena Ramaswamy Iyer.
Tanjore, Tanjore District	Sri M. K. N. Ramaswami Ayyar.
Kollegal, Coimbatore District	Sri M. S. Siddalingappa, Silk Merchant.
Peddapuram, East Godavari District	Sri Muppanna Somaraju.

Answer to general Questionnaire.

1. The Sericultural Industry has not made any appreciable progress since protection was granted in 1934. This is reflected by the figures under mulberry acreage for the last five years. A slight increase is noticeable during 1937-38.

Year.	Acreage.	Price of cocoons per maund.	
		Minimum.	Maximum.
		Rs. a.	Rs. a.
1924-25	15,387	...	...
1933-34	7,944	4 0	7 0
1934-35	6,742	5 0	7 0
1935-36	5,681	5 12	7 8
1936-37	5,705	5 0	9 0
1937-38	7,060	6 4	10 4
1938-39 . . . .	...	6 4	7 8 up to end of May, 1938.

The present price is between Rs. 6-8 to Rs. 7.

The mulberry acreage at present is 7,060 acres.

It may be mentioned that in 1924-25, the acreage under mulberry was 15,387.

There are none entirely dependent upon silkworm rearing or silk reeling for their livelihood. All the silkworm rearers (they are generally agriculturists) and all the silk reelers (they are part-time workers as the reeling establishments are not run continuously during the year) are partly dependent upon the silk industry. The rearing industry is practised by the agriculturists of Kollegal taluk as a suitable subsidiary occupation. The rearing gives employment to the rearer his family and a few labourers whom he employs for cultivating the mulberry and for picking leaves, etc. There are about 7,500 families who are engaged in the rearing of silkworms. There are about 2,000 people engaged in reeling and about 5,000 people engaged in casual work such as leaf picking, mulberry cultivation, manufacture of appliances such as reeling machines, trays, chandrikais, stands, pairing and isolation of silk moths, microscopic testing of moths, cocoons, vendors, etc.

2. The main operations of the silk industry can be classified as:—

- (i) Mulberry growing.
- (ii) Silkworm rearing and disposal of cocoons.
- (iii) Silk-reeling.
- (iv) Marketing of silk, silk waste and pierced cocoons.

(i) In the Kollegal taluk, mulberry is a dry crop and is grown on lands where food crops are generally grown. Unless mulberry pays better than food crops like ragi and cholam it will not be grown. The investment of a mulberry cultivator is his garden for which he rarely borrows money because he uses his own cattle for ploughing and gets mulberry cuttings free of cost either from his own old garden or for a nominal price from the neighbours. He utilises the labour of the members of his family, his farm servants if any, and himself for raising the mulberry crop and rearing of the silkworms.

(ii) The silkworm rearer is generally the mulberry cultivator. He is not a capitalist, and his investment on appliances is small. He purchases seed on a cash basis from Government or from aided grainages. Sometimes he purchases seed cocoons from reliable seed cocoon vendors and gets them tested from the Government moths testers free of cost and then rears. On credit transactions he generally pays a little more because payment depends upon successful harvesting of the crop. After the completion of the rearing he sells his cocoons either to the village reelers or to their brokers. Since a filature has been started at Kollegal, he is selling his cocoons to the filature also.

(iii) Reeling is done both by the power steam filature at Mudigundam (Kollegal taluk) and the village reelers scattered all over the Serikulmal area in the taluk. The filature is a limited company. The Charka reeling establishments are located in the villages. They generally belong to a class of comparatively well to do villagers who are both rearers and reelers. They finance the purchase of reeling machinery, etc., from their own capital. The reeling cocoons are not generally paid for in the beginning but only after the silk is sold. There are some reelers who raise loans for the purchase of cocoons.

Marketing of raw silk.—There is no special organisation controlled by any official or non-official agency for the disposal of silk. The bulk of the charka reeled silk is sold to the local (Kollegal) silk merchants who are capitalists. These merchants send their raw silks to their agents in different weaving centres of the Presidency for sale. The merchants generally pay cash to the silk reelers and sometimes advance money on stock charging a small percentage for interest. The reelers take their silks to different merchants and find out the prices before a transaction is finally settled. There are also brokers in certain cases through whom transactions take place. The charka silk reelers as a rule are not capitalists and so are not in a position to retain their silks in stock until prices improve. They

dispose of their silks soon after reeling at the current market rates as they have to pay the value of the cocoons purchased for reeling.

Silk waste and pierced cocoons.—These are generally sold to the silk waste merchants by reelers and rearers in Kollegal. This trade is carried on in a similar way to raw silk on the cash payment system. There is only one silk waste merchant in Kollegal who purchases the bulk of the silk waste and pierced cocoons.

3. The maximum which could be worked up to under the present organisation is 2,012,000 lbs. of green cocoons and 150,000 lbs. of raw silk if pure Mysore worms are reared and 2,618,000 lbs. of green cocoons and 212,000 lbs. of raw silk of cross-breed worms are reared under ideal conditions.

Estimated maximum attainable and values.

Years.	Quantity of cocoons in thousands of lbs.	Value in thousands of rupees.	Quantity of raw silk in thousands of lbs.	Value in thousands of rupees.
1933-34 . . .	2,264	498	169	612
1931-35 . . .	1,921	461	143	559
1935-36 . . .	1,620	429	121	508
1936-37 . . .	1,626	455	121	534
1937-38 . . .	2,012	664	150	751

Estimated actual production and values.

Year.	Quantity of cocoons in thousands of lbs.	Value in thousands of rupees.	Quantity of raw silk in thousands of lbs.	Value in thousands of rupees.
1933-34 . . .	1,430	315	107	405
1931-35 . . .	1,294	311	97	377
1935-36 . . .	1,091	289	81	342
1936-37 . . .	1,164	326	87	383
1937-38 . . .	1,483	489	111	553

The variations between the estimated maximum and estimated actuals is due to various factors and the most important are:—

- (i) Indifference of the rearer to improvements.
- (ii) Rearing of worms with non-tested seeds.
- (iii) Unnoticed and uncontrolled infection of pebrine disease.
- (iv) Want of steady and remunerative market for cocoons and raw silk.
- (v) Dumping of raw silk from foreign countries like Japan and China, and the competition therefrom.

The rearer does not take special care of the mulberry garden by heavy manuring and deep cultivation.

The estimated maximum production is attainable only if:—

- (i) there is timely rains,
- (ii) the rearing of worms is undertaken only with Cellular seeds,
- (iii) the rearing of worms is conducted on scientific and rational lines,
- (iv) a steady and favourable market exists for raw silk and cocoons,
- (v) competition in silk from Japan and China is reduced,
- (vi) large scale disinfection operations are resorted to.

4. The silk contents of typical varieties of cocoons are as follows:—

	Per cent.
Pure Mysore	12.4
Japanese and Chinese white	17.6
French univoltine	18.4
Cross-breed (Mysore × Japanese or Chinese white)	14.6
Cross-breed (Mysore × French univoltine)	14.8

The silk contents are higher in the foreign varieties of cocoons than either in the pure Mysore or cross-breeds. The cross-breeds are superior to Mysore in this respect.

5. The silkworms reared in the Madras Presidency are:—

- (1) Pure Mysore.
- (2) Chinese white.
- (3) Japanese white.
- (4) French univoltine
- (5) Italian univoltine.
- (6) Cross between Mysore and Chinese or Japanese white.
- (7) Cross between Mysore and French or Italian univoltine (yellow and white).

6. It is not possible to supply information on this question as no silk house has ever been constructed by the Department. All Government silk farms are housed in rented buildings except Coonoor Silk Farm. In Coonoor, the rearing house was constructed by the Government as a bungalow for the Manager of the defunct Fruit Preserving Institute. The rearers of kollegal rear the worms in their own homes and no special rearing house has ever been constructed by any of them. The equipment of a village rearing house is as follows for rearing from an acre of land:—

	Quantity.	Rs. A.
1. Rearing stand	1	5 0
2. Trays	20	4 0
3. Knife	1	0 8
4. Ant-wells	4	1 8
5. Chandrikais	12	7 8
6. Baskets for carrying leaves	2	0 8
7. Bags	1	0 6
8. Chopping board	1	0 2
9. Lantern	1	1 4
10. Rat trap	2	0 8
Total . . . . .	...	21 4

The equipment of Government silk farms is similar but includes a few additional items such as—

- (1) 50 per cent. more trays and chandrikais to keep the worms thin during feeding and spinning periods.
- (2) Two chopping knives instead of one.
- (3) One microscope costing about Rs. 150.
- (4) Two porcelain crushing sets costing about Rs. 10.
- (5) Microscopic slides costing about Rs. 5.
- (6) Miscellaneous articles such as time-piece, thermometer, etc.

Microscopes, etc., are kept for testing of moths, worms, etc., at each stage during the rearing of worms in the farms.

Stands last for 8 to 10 years.

Trays last for 2 years.

Chandrikais last for 3 years.

Knives last for 2 years.

Rat traps last for 2 years.

Lantern last for 3 to 5 years.

Chopping board last for 2 to 3 years.

Baskets last for 2 years.

Bags last for 1 to 2 years.

Except that the department is hiring out chandrikais for the benefit of the village rearers in some of the villages no improvements have been introduced in this direction.

It has not been found possible to reduce the cost of equipping a rearing house.

7. The following statement shows the results given by the different varieties of worms reared in the Madras Presidency:—

Race or variety.	Number of days.	Number of cocoons to a lb.	Length of filament.	Denier.
			Yds.	
1. Pure Mysore . . .	27 to 32	575	300 to 350	1.90
2. Chinese white . . .	25 „ 30	524	450 „ 530	2.20
3. Japanese white . . .	25 „ 30	524	450 „ 530	2.40
4. French univoltines .	32 „ 36	343	800	2.60
5. Cross-breed (Mysore x Chinese or Japanese white) .	23 „ 28	450	550	2.0
6. Cross-breed (Mysore x French uni- voltine) . . .	24 „ 28	450	575	2.3

8. No different method of rearing worms has been adopted since protection was granted.

9. The worms are reared from both local and imported seeds. Local seed consists of pure Mysore and cross-breeds between Mysore and white (acclimatised Chinese and Japanese white bi-voltines and univoltines). The white cocoons are mostly reared in Government silk farms at Hosur, Palmaner and Thaduguni and a few selected rearers of Kollegal under our direct supervision. The imported seeds consist of Italian and French univoltines and small quantities of bivoltines and univoltines from China and Japan. 700 ounces univoltine seeds (both yellow and white varieties) and 300 ozs. of univoltine seed were secured from France and Kashmir respectively during 1937-38.

(ii) The production of seed is organised separately from the production of cocoons. The organisation is as follows:—

- (1) Rearing of seed cocoons (pure Mysore and white) is conducted in the Government silk farms and selected rearers of Kollegal taluk and at a few district centres under the supervision of the departmental staff.

- (2) Supply of "Cellular" layings both pure Mysore and white to all rearers (Kollegal and district centres) from our Government silk farms and by purchasing seed cocoons from reputed seed cocoon centres in Kollegal and Mysore. Preparation of cross-breed seeds and distribution of same to the rearers by the department.
- (3) Careful supervision and control of the rearing operations.
- (4) Selection of the best cocoons for further propagation.
- (5) Introduction of aided grainages and farms and supervision over their work.
- (6) Rearing of chawki worms in the Government silk farms and aided grainages for supplying the rearers for producing seed cocoons.
- (7) Testing of moths by the departmental moth testers under the supervision of a Silk Superintendent. These moth testers are stationed in 15 important rearing villages of Kollegal taluk and test seed cocoons for private rearers free of cost. The testing of seed for most of the seed cocoon vendors who bring seed cocoons from Mysore parts is also undertaken. These layings are generally returned to the seed vendors for sale to their client in Kollegal taluk primarily and to Mysore rearers if unsold. The department has distributed in all about 93 per cent. of Cellular seed during 1937-38 and thus controlled pebrine to a large extent. The cost of producing one ounce of seed by the department is Rs. 1-5-3. This is made up of the following items:—
 - (i) What has been tested for the benefit of the rearers in the villages (i.e., amount spent on testing).
 - (ii) Amount spent for producing seeds in the different farms.
 - (iii) Amount spent on the purchase of seed cocoons for the distribution of cellular layings by the departmental staff.
 - (iv) Bonus paid to six aided grainages and farms at Rs. 2-8 for every 1,000 layings tested and distributed.
 - (v) Amount spent on supervision and management.

The sale prices of the departmental layings are:—

	Rs. A. P.
One ounce of pure Mysore seed	0 11 2
One ounce of cross-breed seed	1 6 5

10. There has been no legislation on the question of supplying disease-free seeds to the rearers.

Other means adopted are as follows:—The Mysore race of worms which are largely used in this Presidency unlike the varieties of worms reared in advanced Sericultural countries such as Japan, Italy, France, etc., allow only for four to five days for the examination of the moths. In the circumstances, the work of seed testing has necessarily to be carried on in a number of small farms or units in reputed seed cocoon centres scattered throughout the sericultural area, rather than in big and highly specialized seed establishments as in Japan and Italy. Hence the Madras Government through the Department of Industries (Sericultural Section) have been making every endeavour to supply disease-free layings to the rearers of Kollegal taluk in the limited time available for testing and are tackling the problem in five different ways:—

- (1) Production and testing of seed cocoons in four Government silk farms at Hosur, Palmaner, Thadaguni and Coonoor.
- (2) Purchase and testing of seed cocoons in 8 aided grainages and farms stationed in seven important rearing villages of Kollegal taluk.

- (3) Purchase of seed cocoons from reputed seed cocoon areas of Kollegal and Mysore and testing of same by a Government Peripatetic Rearing Party consisting of one Silk Superintendent, 14 moth testers, 1 rearer and 1 Silk Reeling Demonstrator.
- (4) Testing of seed cocoons in the houses of rearers by the Party free of cost for the benefit of the village rearers
- (5) Hybernation and distribution of univoltine and bivoltine seeds from Japan, China and France.

The number of layings prepared and distributed (i.e., including layings prepared by the examination of moths emerged out of the cocoons preserved by the ryots) for the last five years is furnished below:—

	Rs.
1933-34	8,43,000
1934-35	9,61,588
1935-36	11,02,049
1936-37	29,25,750
1937-38	39,41,937

During 1937-38 the figures work out to 93 per cent. of the entire seed requirements of the Presidency. The following are the details of how the total amount was worked up to:—

	Rs.
1. Tested for the benefit of the village rearers by the moth testers both in their houses and office	30,43,395
2. Produced by the Government silk farms (four)	3,71,686
3. Aided grainages (six)	5,26,856
Total	39,41,937

Two more grainages were started during the current year and so there are eight aided grainages working at present. These grainages work under the direct supervision of the Sericultural Department. The graineurs are paid a bonus of Rs. 2-8 on every 1,000 layings tested and distributed besides free equipment of appliances, microscopes, etc. These measures have proved successful. Some of the big rearing villages like Chilaikvadi, Kajjihundi, Kempampalayam, Surapuram, Kunagalli, Thadaguni, etc., are using mostly tested seeds supplied by the department and they are harvesting most of the crops successfully. One Rev. Buchanan who owns 100 acres of mulberry in Yedahalli village of Kollegal taluk has been using only tested seeds supplied by the department, and he has hardly lost a crop. He is also rearing cross-breed seeds supplied by the department and speaks highly of their disease resisting qualities and yield. Four centres have been chosen for the preparation of cross-breeds, and the Department is actively engaged in the preparation and distribution of these seeds. These seeds are very popular. The rearers are gradually resorting to the rearing of cross-breeds in preference to Mysore seeds. A satisfactory feature of the supply of cross-breed seeds is the willingness of the rearers to pay ready cash in spite of the fact that 100 layings of cross-breeds are sold at Re. 1 as against As. 8 for 100 pure Mysore layings.

11. Our worms are mostly multivoltines. The Government silk farms and also some selected rearers, rear multivoltines, univoltines, etc. Seven crops are raised with pure Mysore. The same number of crops is raised with cross-breeds also at present. The average number of worms produced from an ounce of pure Mysore seed is 34 to 35 thousand worms and 34 to 36 thousand worms from an ounce of cross-breed seeds. The total quantity of seeds hatched during 1937-38 was 28,654.2 ounces of pure Mysore seeds and 1,335.7 ounces of cross-breeds.

12. The Chinese and Japanese white univoltines and bivoltines are completely acclimatized. All the rearings of these worms are conducted in the Government silk farms and by selected rearers. The worms are fed on bush mulberry leaves. They are multivoltines and hatch once in 10 days and spin their cocoons in chandrikais like Mysore multivoltine. The cross-breed worms (Mysore \times Chinese or Japanese white) are also multivoltines. Artificial treatment and hatching and rearing of French and Italian univoltine seeds were tried and the results of the experiments which have a good bearing on acclimatisation are given below:

Artificial hatching of univoltine eggs.—Sericultural technique has advanced so far that now univoltine seeds which 10 years ago could be hatched only once a year after hibernation can now be hatched like multivoltine seeds in 10 days time by treating the eggs artificially with hydrochloric acid bath after oviposition. Several experiments were conducted with seeds got out of locally produced univoltine cocoons and also fresh green cocoons secured from France in two batches by Air Mail. The most satisfactory method is to dip the egg sheets in hot water containing 15 per cent. hydrochloric acid solution at a temperature of 115° F. The immersion should not be less than five minutes and more than seven minutes. The treatment of the eggs must take place 12 to 26 hours after oviposition for getting good hatching results. The hatching results will be disappointing if the period after oviposition exceeds 36 hours. In such cases hibernation of the eggs is absolutely necessary.

Experiments on Hibernation.—Since the introduction of univoltine seeds difficulty has been experienced in satisfactorily hibernating these seeds as it is necessary to maintain a constant temperature. The Madras Government have been pleased to sanction the purchase and installation of a kerosene operated Electrolux refrigerator for the hibernation of foreign seeds and for facilitating the preparation of cross-breed seeds. A refrigerator is very useful for the following purposes:—

- (i) All foreign univoltine seeds need to be hibernated for successful hatching. This is important as the success of the rearing depends to a large extent on uniform hatching. There should be a place to control hibernation temperature which should not rise above or fall below the standard to be maintained. This can be best done only with a refrigerator.
- (ii) In cross-breeding the emergence of both moths must be simultaneous since the male moths got from a univoltine white variety are crossed with the healthy female moths of the local indigenous Mysore variety. It is not always possible to get seed cocoons of both the varieties for simultaneous moth emergence. By keeping one or the other variety in a refrigerator, moth emergence can be delayed by a few days according to circumstances.

13. (1) The following are the methods adopted for the selection of the cocoons and moths used for the production of seeds:—

- (i) Selection of seed cocoons from Government silk farms and reputed seed cocoon areas of Kollegal and Mysore.
- (ii) Rearing of only "Cellular" seeds for seed cocoons in the Government silk farms and a few selected rearers.
- (iii) Rearing of small batches of worms for seed purposes.
- (iv) Washing of eggs in a 2 per cent. solution of formalin before hatching.
- (v) Attention given to the brushing of worms with soft feathers.
- (vi) Attention given to air, ventilation, cleanliness, etc., as far as possible during each rearing.
- (vii) Systematic feeding of worms and spacing in trays and chandrikais.

- (viii) Examination of worms at every stage at the time of worm rearing for seed cocoons
- (ix) Rearing with leaves obtained from the same locality from start to finish.
- (x) Considerations given to suitability of soil and climatic conditions in the selection of seed cocoons.
- (xi) During summer wet sand is spread under the rearing stands to lower the temperature and a charcoal oven being kept in the rearing room to raise the temperature during cold weather.
- (xii) Worms spun between 6 and 10 A.M. only being used for seed purposes.
- (xiii) The worms are allowed to spin till the fourth day.
- (xiv) Cocoons spun on first and last days and rainy and cloudy days are not used for seed purposes.
- (xv) Elimination of flimsy cocoons.
- (xvi) Disinfection of the rearing houses and appliances before the commencement of each rearing.
- (xvii) Percentage selection of cocoons and the rigid examination of pupae and cent per cent. testing of moths to produce Cellular seeds.
- (xviii) Rigid and cent per cent. moth testing undertaken by the Departmental agency and aided grainages and farms for the benefit of the rearers. Poor and brown layings (discarded or not) in addition to the diseased layings are rejected in toto. The average has only been 300 layings for 1,000 cocoons in healthy seed cocoons.

(2) Pebrino which is a widespread disease is a hereditary source of infection. It is checked by the issue of disease-free layings. Information is lacking as to the incidence of contamination in all the stages of worm-rearing and the effect of ventilation, environment and other cognate matters. Hence the Government of Madras submitted proposals to the Government of India to conduct research in this direction. The Government of India were pleased to accept the proposals and they granted a sub-vention to be distributed annually for five years. Under the sub-vention scheme, a Pathology Assistant was appointed to conduct research work. He started work from December, 1935, and the results of the experiments carried on by him are given below:—

Experiment No. 1.—The aim of this experiment was to determine the effect of rearing a batch of healthy worms by the side of a highly pebrinised lot. The result was that the healthy lot contained 14 per cent. pebrine at the time of moth examination.

Experiment No. 2.—This experiment was conducted in order to ascertain whether pebrine disease could be eliminated by rigid selection and applying the cellular method of seed examination. To start with there was 20 per cent. pebrine in the lot. By rigid selection, testing and rearing, the disease was completely eradicated in the 7th generation.

Experiment No. 3.—A healthy lot of worms reared in trays smeared with pebrinised cow-dung got infected. It was found that worms reared in all infected appliances such as stands, ant-wells, etc., became infected. Exposure of these appliances to hot sunlight has a beneficial effect and reduces the percentage of disease considerably.

Experiment No. 4.—A healthy lot of worms reared in a room where pierced cocoons of a pebrinised lot were stored became infected to the extent of 5.5 per cent.

Experiment No. 5.—Disease-free layings, if exposed to the dust of pebrinised moths get infected to the extent of 2.8 per cent. during the

course of rearing. The best way of preventing the disease is to wash these seeds in a 2 per cent. solution for formalin, before hatching.

Experiment No. 6.—Pebrinised male moths are found to transmit the disease during the act of copulation to the healthy female moths to the extent of 3 per cent. The pebrine spores are found to stick to the shells of the ova and do not affect the embryo inside. Washing of such seeds in a 2 per cent. solution of formalin has been found to be the best remedy. All Government tested seeds are therefore washed in formalin solution before distribution.

Experiment No. 7.—A rearer who handles a diseased lot of worms and a healthy lot of worms transmits the disease to the healthy lot during the course of the rearing through his hands, clothes, etc.

Experiment No. 8.—Pebrinised trays once used should not be used again for rearing healthy batches of worms unless they are disinfected. The worms reared in such trays were found to be highly pebrinised.

Experiment No. 9.—In an infected room worms which were exposed were found to be infected more than worms which were not exposed but covered with perforated papers.

The results of these rearings are brought to the notice of the village rearers by the departmental staff constantly and they are advised to follow them closely. Whenever there is an outbreak of any disease in the rearing villages, the rearers are being advised regarding the remedial measures to be adopted by them. Thus, it has been found possible to combat the pebrine disease to a considerable extent.

14. The rearings conducted with cellular seeds are not lost except under abnormal conditions such as un-noticed and un-controlled infection of the rearing house or even rearing locality, unsystematic feeding of worms and cleaning, destruction by rats, lizards, ants, careless feeding of worms by different qualities of mulberry leaves when mulberry has to be purchased, etc. The rearings conducted with cross-breed layings had no failures during 1937-38. There were some failures during 1935-36 and 1936-37 due to the copulation of Mysore male moths with Mysore female moths and then with white male moths which produced Mysore layings and not cross-breeds (some couplings get separated without being noticed). This is unavoidable when moth emergence from big batches of Mysore seed cocoons takes place from 4 A.M. and moth separation has to be attended to immediately. Since the moulting periods were different, the rearers threw away the worms out of ignorance stating that worms were unequal and would not thrive in spite of the instructions to the contrary. Some of the rearers who followed the advice of the departmental staff harvested successful crops by separating Mysore and cross-breed worms during moulting. On an average 15 to 20 per cent. of the worms die in silk worm rearing on account of the following causes:—

- (i) Due to rearing with non-tested seeds
- (ii) Due to rough brushing of worms.
- (iii) Due to lizards, rats, ants, etc.
- (iv) Unnoticed and uncontrolled infection.
- (v) Due to diseases like grasserie, ancherie, etc.

The improvements made are—

- (i) Progressive increase in the supply of cellular seeds has been made—both Mysore and cross-breeds—resulting in better crops.
- (ii) Washing of seeds in a 2 per cent. solution of formalin before distribution.
- (iii) Disinfection of the rearing houses.
- (iv) Advice given on the incidence of contamination in all the stages of the worm rearing.

- (v) Scientific methods of rearing such as non-crowding of worms, in trays and chandrikais, and the necessity for ventilation, cleanliness, etc., are being demonstrated in the farm at Thadaguni.
- (vi) Systematic feeding of worms.
- (vii) Suitability of the soil and climatic conditions taken into consideration for starting rearings.
- (viii) Leaves obtained from the same locality are used for rearing from start to finish.

15. The Kollegal silk worms known as Mysore worms are fed on Kollegal bush mulberry leaves. The mulberry is generally cultivated by the man who breeds the worms in his own land. It is not done on leased lands. There are certain cases where the silkworm rearers buy leaves from other mulberry cultivators when the supply from their own gardens falls short of their own requirements. There are cases when the rearer sells away his leaves if there is any mortality amongst his own worms. Mulberry is generally propagated by means of cuttings. Kollegal is a dry area and the plant depends entirely upon rainfall for water supply. The cost of cultivation for one acre of mulberry is:—

	Rs. a.	
Non-recurring	35 0	} Details furnished separately.
Recurring	21 12	

The plants are pruned once in a year. The preliminary operations comprise ploughing, hoeing, weeding and manuring. In Kollegal farm yard and silkworm litter are generally applied as manure once in a year. Experiments carried on by the Agricultural Department in artificial manures were not successful and so it is not advocated in Kollegal dry area. On an average 20 cartloads of manure are used per acre for initial planting and 12 cartloads in subsequent years. The number of bushes to an acre is 5,600. The average life of the bush is about 12 to 15 years. The quantity of leaves required to feed the worms produced from 1 ounce of seed is 744·8 lbs. in the case of Mysore worms and 966 lbs. of leaves in the case of cross-breeds. The average cost of the leaves to the breeder of worms is Rs. 8-2-6 for rearing pure Mysore worms and Rs. 10-8 for rearing cross-breed worms. The yield of leaves per acre on an average is 3,450 lbs.

Initial cost of planting an acre of mulberry in Kollegal taluk.

	Rs. a.
1. Cost of preparing an acre of land, 4 ploughings with 3 pairs at As. 12	9 0
2. 20 cartloads of farm yard manure at As. 8 a cartload	10 0
3. Carting manure at As. 2 per cartload	2 8
4. Spreading manure (4 men at As. 4)	1 0
5. Levelling (ploughing for half a day)	0 6
6. Lining—1 plough	0 12
7. Cost of seed cutting	1 8
8. Charges for carrying cuttings	0 8
9. Charges for preparing the sets (2 men at As. 4)	0 8
10. Planting with 5 men at As. 4	1 4
11. Weedings 2 with 10 women at As. 2	2 8
12. Planting of failed pits with 2 men and 4 women	1 0
13. Cost of cuttings for failed pits	0 6
14. Watering	3 12
Total	35 0

NOTE.—In some villages watering of plants is done if water is available and rain has failed after planting. This costs an extra Rs. 1-4 for each watering. Three waterings are generally given.

Recurring expenditure on an acre of mulberry garden.

*Villages on the Eastern side of Kollegal taluk (i.e., villages near the Government silk farm at Thadaguni).—*In order to encourage rearers of these villages reputed for seed cocoon rearing the Government farm at Thadaguni is run as a demonstration farm by cultivating the garden exactly as the village cultivator does and rearing the worms in a house of the village pattern. Our cultivation charges are no more than what the village cultivator spends on similar soil conditions. The soil at Thadaguni and neighbouring villages are sandy and the mulberry is not deep rooted. The cultivators do not generally plough their gardens for fear of hurting the roots of the plants. The ploughing is done where the soil is either red loam or black cotton. The mulberry is deep rooted in such soils. As it is difficult to purchase manure in this village, the manuring is also done on a limited scale.

(i) Actual details of working expenditure in the Government Silk Farm at Thadaguni during 1937-38 for 9.32 acres of mulberry:—

	Rs. A. P.
1. Cost of 102 cartloads of manure including the cost of transport from the manure pits to the farm gardens	49 0 0
2. Manuring charges including digging	5 0 0
3. Weeding charges	4 4 0
4. Pruning charges	1 14 0
5. Bundling up of cuttings (10 women at As. 2)	1 4 0
6. Charges for 12 hoeings	65 4 0
	<hr/> 126 10 0
Hence the cost of cultivation in the farm for one acre of mulberry is Rs. $126-10 \div 9.32$	13 9 5
Land assessment	1 4 0
One instalment towards initial cost	3 0 0
	<hr/> 17 13 5
	or rounding 17 14 0

Note.—In the farm the hire charges for a plough is As. 8. These charges are more or less the same for half the area of the taluk.

Average recurring expenditure for villages bordering Mysore Province.

	Rs. A.
1. Cost of manure 12 cartloads at As. 8 a cartload	6 0
2. Carting charges	1 8
3. Spreading, levelling, etc.	0 8
4. Weeding	0 8
5. Pruning, bundling, etc.	0 8
6. Ploughing with 3 pairs of ploughs at As. 12 a plough	4 8
7. 10 hoeings at As. 12	7 8
	<hr/> 21 0
8. Land Assessment	1 9
9. One instalment towards the initial cost	3 0
Total	<hr/> 25 9

In these villages the ploughing charges are higher, i.e., As. 12 a plough. The soil is either red loam or black cotton, and ploughing is necessary in such soils. So the cultivation charges in these villages are higher. Therefore, the average recurring cost per acre of mulberry garden in Kollegal taluk is Rs. 25-9 *plus* Rs. 17-14=Rs. 43-7÷2=Rs. 21-11-6 or rounding Rs. 21-12 exclusive of any provision for supervision, or interest and depreciation on the bulls and the agricultural implements employed.

There is another worm known as ori which feeds on castor leaves. Rearings of these worms were undertaken successfully at several centres in the Province. The leaves are grown by the ryots in their own lands for castor seed. After the seeds mature the leaves that run to waste are used for feeding these worms. Since the rearings are conducted only in selected areas the leaves are never purchased by anybody. It has been demonstrated by the Department that these eri worms which are hardier than mulberry silkworms can be reared throughout the Province at certain seasons of the year. Work on eri worm has been restricted owing to lack of a remunerative market for the cocoons. Very few people rear these worms now. No other worms are reared in the Madras Province.

16. (a) Some manurial experiments were conducted with bush mulberry at Thadaguni and Hosur silk farms and also in some of the villages of Kollegal taluk. The results are furnished below:—

Thadaguni Silk Farm.—Three plots of mulberry were treated with sun hemp compost, horse-gram green manure and farm yard manure and the results are as follows:—

	1936-37.	1937-38.
	Lbs.	Lbs.
Sun hemp compost	932	1,314
Farm yard manure	875	1,225
Horse gram green manure	1,012	1,406

Horse gram green manure gave the best of yield and so the ryots are being advised to use this green manure. Some of them are doing it.

Hosur Silk Farm.—During 1934-35 experiments on partially irrigated mulberry with chemical fertilisers were conducted. The Imperial Chemical Industries (India), Ltd., Madras, supplied us with 330 lbs. of sulphate of ammonia and 300 lbs. of Nicifos 22/18 a compound fertiliser containing nitrogen and phosphoric acid. The chemical fertilisers were applied according to the instructions given by the company and the results are tabulated below:—

4 plots of 20 cents, each were selected for the experiment.

Particulars.	Acreage.	Farm yard manure.	Sulphate of ammonia	Nicifos 22/18.	Yield.
	cents.	cart-loads.	lbs.	lbs.	lbs.
Plot A	20	2	nil	nil	478
„ B	20	2	40	nil	619
„ C	20	2	22	20	589
„ D	20	2	4	40	670

The best results were secured from the application of 2 cartloads of farm yard manure, 4 lbs. of sulphate of ammonia and 10 lbs. of Nicifos 22/18 for 20 cents.

Results of the experiments carried on artificial manures in Kollegal and Mudigundam villages.

Particulars.	Area.	Manure used.			Yield.
		Farm yard.	Super.	Sulphate of Ammonia.	
	cents.	cart loads.	cwt.	lbs.	lbs.
Mudigundam Plot No. 1 . . .	16½	½	..	..	631
" " 2 . . .	16½	..	½	26½	713
Kollegal No. 1 . . .	50	2½	..	..	997
" 2 . . .	50	..	½	80	1,211

From the above two experiments, it was found that though there was an increase in the yield of leaves by the application of chemical manures it was not economically advantageous as the cost of extra leaf did not cover the cost of extra manure used for the experiment. When prices are low for cocoons and silk, the mulberry cultivators are not anxious to spend any money on manures in dry areas of Kollegal taluk. Since artificial manures were not found to be successful and paying, their use is not advocated. In the absence of improvements by adopting cultural methods, it has not been found possible to reduce the cost of cultivation in the bush mulberry plantations of Kollegal. The following steps have been taken to improve the yield and reduce the cost of mulberry cultivation in the Government silk farms:—

- (1) Introduction of better varieties of mulberry from Japan, Kashmir and Bengal. These have come up well in the Government Textile Institute, Madras, and the Government silk farms at Coonoor, Thadaguni and Hosur.
- (2) Improvement of mulberry in the Government silk farm at Coonoor.
- (3) Substantial improvements have been brought about on Mysore bush mulberry by grafting, budding, etc.
- (4) The fungus pest has been practically eradicated by cultural methods and heavy manuring with farm yard manure.
- (5) Three mulberry seedlings have been distributed to some of the rearers in Kollegal taluk, but they are not much of a success except in the Thadaguni silk farm where we get them watered.

16. (b) The number of leaf crops per annum is 7 and may vary slightly according to seasonal conditions. The tree cultivation may be preferable to rear the univoltine worms, but the bush mulberry cultivation is certainly preferable to rear the indigenous Mysore variety and the cross-breed worms. It is very difficult to bring up trees in Kollegal taluk where irrigation facilities are practically nil and where the villager finds it difficult even to get drinking water during summer. The average initial cost of cultivation of mulberry including manure is Rs. 35 and the recurring cost is Rs. 21-12 (details furnished under question 15) for one acre. The yield of leaves is 3,450 lbs. per acre on an average. We have no experience of the yield of leaves per acre in tree mulberry as our trees are yet small and scattered.

17. It is rarely that a cultivator of mulberry sells his leaves to the breeder of worms as he rears the worms himself but a typical case is the Government silk farm at Thadaguni where 9.32 acres of mulberry have been leased on a rental of Rs. 172-14-3 per acre. The net income for the owner of the mulberry land is Rs. 18-9 less Rs. 1-4 assessment, i.e., Rs. 17-5. The lease has been continuing for the last five years and has not yet been terminated. Except land assessment, all other charges such as cultivation, etc., are incurred by the department.

(ii) Other alternative crops are ragi and cholam. Details of cultivation charges and the income from same are furnished below:—

Particulars.	Ragi.	Cholam.	Mulberry.
1. Preparatory cultivation—			
4 ploughings at Rs. 1-8 .	6 0 0	...	
3 ploughings at Rs. 1-8 .	...	4 8 0	
2. Manuring and spreading—			
10 cartloads at As. 8 .	5 8 0	...	
3 cartloads at As. 8 .	...	4 0 0	
3. Seeds and sowing—			
3 Sers. . . . .	...	2 0 0	
4 Sers.	1 14 0	...	
4. Weeding, etc.	4 0 0	3 0 0	
5. Harvesting	2 0 0	1 8 0	
6. Assessment (average)	1 6 6	1 6 6	
Total	20 12 6	16 6 6	
Yield—5 kandakams	25 0 0	20 0 0	(4 kandakams).
Straw 2,000 lbs	4 0 0	4 0 0	
Total receipts	29 0 0	24 0 0	59 1 } Refer to
Less expenditure	20 12 6	16 6 6	47 0 } Q. 23.
Net income	8 2 6	7 9 6	12 1

18. The position has remained much the same since the last enquiry as the average prices of cocoons and raw silk have not appreciated to any considerable extent and the prices of ragi and cholam are almost the same.

19. A few rearers have adopted the system of growing horse gram as green manure crop. Since prices of cocoons and silk were not encouraging, the mulberry cultivator has not gone in for any improvements. The following methods are adopted in our Government silk farms:—

- (i) Introduction of better varieties of mulberry from Japan, Kashmir and Bengal. These have come up well.
- (ii) Improvement of mulberry by grafting, budding, etc.
- (iii) The fungus pest has been practically eradicated by cultural methods and heavy manuring with farm yard manure.
- (iv) Tree mulberry seedlings have been distributed to some of the rearers in Kollegal taluk but they are not much of a success except in the Thadaguni farm where we get them watered.

It has not been found possible to effect any reduction in the price of food supply for silkworms.

20. The method of cultivating the mulberry and the marketing organisation have not changed. In the rearing of worms more attention is now paid to:—

- (i) Using of cellular seeds for rearing.
- (ii) Rearing of cross-breed worms.
- (iii) Disinfection of rearing houses before the commencement of each rearing.
- (iv) Non-crowding of worms in trays and chandrikais.
- (v) More attention paid to cleanliness, ventilation, air, systematic feeding and cleaning of worms.
- (vi) Washing of layings in a 2 per cent. solution of formalin before it is used for rearing.
- (vii) Brushing of worms with soft feathers.
- (viii) Selection of seed cocoons from reputed seed cocoon areas of Kollegal and Mysore.
- (ix) Advice given on the incidence of contamination of diseases.

The above improved methods are being demonstrated in our farm at Thadaguni which is in the heart of the silk area. The rearers are gradually adopting the improved methods.

21. French and Italian univoltine worms were reared with 100 ounces in the beginning of the year 1938 out of bush mulberry leaves and the highest yield was only 25 lbs. per ounce. The Japanese and Chinese univoltine and bivoltines have given us 43 lbs. per 100 layings on an average (i.e., 60 lbs. per ounce) and multivoltines have given 56.56 lbs. per ounce on an average. One ounce of cross-breed gave 102 lbs. The above figures are recorded in the Government silk farm at Thadaguni. The average yield for cross-breeds and multivoltines has been considerably increased in the villages also. The average for one ounce of cross-breed seeds is 60 lbs. of cocoons and the average for one ounce pure Mysore seed is 49 lbs. No figures are available in regard to the yield of cocoons from an acre of tree mulberry leaves. There has been a lot of improvement in the yield of cocoons from pure Mysore and cross-breeds since the last Tariff Board Enquiry. The rearer is able to harvest two to five lbs. more for every 100 layings of pure Mysore at present. Cross-breed seeds are being prepared and distributed to the rearers by the department. They are harvesting the crops successfully and getting an average yield of 60 lbs. per ounce.

22. The univoltine cocoons are much superior in silk contents to the multivoltine cocoons. Hybrids have been produced by crossing:—

- (i) Japanese and Chinese and Italian white univoltines and bivoltines with Mysore multivoltines.
- (ii) French univoltines (Yellow) with Mysore multivoltines.

The results of both have been successful, and encouraging. The colour of the first variety where the Mysore female moth predominates is greenish yellow in colour (i.e., Mysore cocoon colour). These hybrids have turned multivoltines and do well with bush mulberry leaves. They are disease resisting, take less time to rear, consume less quantity of leaves, etc. In spite of the higher prices for seed these seeds are very popular with the rearers. The highest quantity of yield recorded by a village rearer is 75 lbs. for 100 layings, i.e., 105 lbs. for an ounce. These cocoons fetch a better price than Mysore.

Two experiments were conducted to rear worms out of the second variety of crosses. The result has been that the hybrid cocoons were far superior to the Mysore cocoons but not so good as univoltines. The colour of the cocoons and silk has been yellow. The quantity of cocoons secured for an ounce of seed was 84 lbs.

23. The cost of producing cocoons from one ounce of seed during 1937-38 is furnished below:—

No.	Particulars.	Pure Mysore.	Cross breed.
		Rs. A. P.	Rs. A. P.
1.	Cost of 600 disease-free layings	3 0 0	...
	Cost of 500 disease-free layings . . . . .	...	5 0 0
2.	Cost of extra labour for 7 roarings at Rs. 1-12	12 4 0	...
	Cost of extra labour for 7 rearings at Rs. 1-10 . . . . .	...	11 6 0
3.	Cost of food for worms	21 12 0	21 12 0
4.	Cost of appliances	8 0 0	8 0 0
5.	Other expenditure	2 0 0	2 0 0
	Total	47 0 0	48 2 0
	Yield of cocoons	210 lbs.	245 lbs.
	Yield of cocoons for one ounce of seed	49 lbs.	69 lbs.
		Rs. A. P.	Rs. A. P.
	Cost of producing cocoons from one ounce of seed	10 15 6	13 7 7

The above works cost for cocoons does not take into consideration the wages of the rearer, his wife and one or two family helpers, whilst as stated in answer to question 15, no allowance has been made in the cost of food for workers for the supervision of the mulberry cultivation and for interest and depreciation on the bulis and agricultural implements employed in the cultivating operations. The rearer and his family who do the leaf picking and rearing of worms do not count their labour. It is only after IV moult that extra labour if any is employed. The total works expenditure incurred on the production of cocoons in the Kollegal taluk during 1937-38 was Rs. 7,060 × 47 = Rs. 3,31,820.

The cost of producing one lb. of cocoon and the cost of producing cocoons from one ounce of seed in the Government Sericultural Farm, Thadaguni (Kollegal taluk) during 1937-38 is furnished below:—

No.	Particulars.	Amount.
		Rs. A. P.
1.	Cost of seed (pure Mysore, Japanese and Chinese white and univoltines)	58 11 0
2.	The cost of labour for picking leaves, conveying the same, etc.	305 3 0
3.	The cost of leaves—	
		Rs. A. P.
	(i) Lease amount	172 14 3
	(ii) Leaves purchased	233 13 0
	(iii) Manure and carting	49 0 0
	(iv) Weeding charges	4 4 0
	(v) Manuring charges	5 0 0
	(vi) Pruning charges	1 14 0
	(vii) Bundling up cuttings	1 4 0
	(viii) Hoeing charges	65 4 0
	(ix) Assessment	11 10 5
		544 15 8

No.	Particulars.	Amount.
		Rs. A. P.
4.	Cost of appliances	20 12 0
5.	Cost of transport of cocoons, etc.	22 12 0
6.	Other expenses	38 8 6
7.	Rent for the farm buildings	60 0 0
Total expenditure		1,050 14 2

Harvest of cocoons in the farm	2,908.7 lbs.
Cost of producing 1 lb. of cocoons	As. 5-9
Number of ounces of seed reared	58
Cost of producing cocoons from one ounce of seed	Rs. 18-2

NOTE.—The above expenditure does not include the pay of establishment in the farm. This farm is worked on the village system but with improved rearing methods.

24. The price per lb. of cocoons maxima and minima from 1933-34 is furnished below:—

Year.	Maximum price per lb.	Minimum price per lb.
	As. P.	As. P.
1933-34	4 6	2 7
1934-35	4 8	3 0
1935-36	4 10	3 8
1936-37	5 9	3 2
1937-38	6 7	4 0
1938-39	Present price is As. 4-6 a lb.	

25. Generally the breeder of the worms is not a reeler, and so sells his cocoons for reeling. There are exceptions to this general statement. The reeler sells them at once irrespective of the state of the market as he is afraid of:—

(i) Dryage.

(ii) Damage of cocoons by rats, ants, etc.

(iii) Extra expenses due to steaming and conditioning. There may not be any space in his house for spreading and keeping the cocoons for drying after steaming. The cocoons after steaming gives an offensive odour, especially in an over-crowded village dwelling house.

(iv) Reelers generally purchase green cocoons and not dried or conditioned cocoons because the reeler does not know what degree of steaming and stifling is necessary. The average prices obtained for the last five years for one lb. of cocoons is furnished below:—

	As. P.
1933-34	3 6
1934-35	3 10
1935-36	4 3
1936-37	4 6
1937-38	5 3
1938-39	4 6 present price.

The average yield for 100 lbs. of cocoons:—

	Lbs.
1. Raw silk	7.46
2. Chasam or silk waste	3.73

The average values obtained for each are:—

Year.	Price of silk.			Price of silk waste.		
	Rs.	A.	P.	Rs.	A.	P.
1933-34	28	5	3	0	4	4
1934-35	29	2	4	0	5	11
1935-36	31	4	9	0	9	0
1936-37	32	10	4	0	14	4
1937-38	37	4	10	1	4	7

26. The total production of raw silk in Kollegal taluk reeled by hand on single charkas was 110,641.8 lbs. during 1937-38. There are no multiple charkas in Kollegal. Information as to the total quantity of raw silk produced by the filature of 40 basins which was started in December, 1937, will be given to the Board by the Managing Agents of the Kollegal Silk Filatures, Ltd.

27. The total quantity of raw silk reeled and waste produced with the average price obtained for each of the last five years is furnished below:—

Year.	Quantity of raw silk reeled in thousands of lbs.	Value in thousands of rupees	Quantity of silk waste produced in thousands of lbs.	Value in thousands of rupees.
1933-34	107	405	53	4
1934-35	97	377	48	5
1935-36	81	342	41	6
1936-37	87	383	43	10
1937-38	111	553	55	19

Year	Average price per lb. of raw silk.			Average price per lb. of silk waste.		
	Rs.	A.	P.	As.	P.	
1933-34	3	12	9	1	2	
1934-35	3	14	6	1	7	
1935-36	4	3	2	2	5	
1936-37	4	0	6	3	10	
1937-38	5	0	0	5	6	

The number of cocoons required to produce a lb. of raw silk is furnished below:—

Particulars.	Mysore.	Cross breeds.
I Quality	8,798	6,435
II Quality	7,475	5,400
III Quality	6,900	4,950

This answer relates to silk reeled by hand. The country reeling machine consists of a basin of mud or copper fixed three feet higher than the

ground level with a small place set apart for the reeler to squat on. Water in the basin is heated from underneath with a fire kept burning with firewood throughout the day when reeling is going on. There is a reel in front of the reeler which is turned by means of a handle. The circumference of the wheel is about 85 inches. The silk fibre which consists of 10 to 30 filaments of cocoons passes through a hole in a small iron plate and is received in the reel through a distributor. The hot water in the basin is used both for boiling the cocoons and the reeling of silk. It is not possible to maintain an even temperature in the basin. Changing of water in the reeling basin which becomes dirty is not done often to save time and firewood. There is hardly any twisting given to the thread comprising a number of filaments. When a thread is broken it is not generally joined together but some of the reeling establishments do it now. In addition to the reeler, there is a turner for every charka and a labourer for every 2 charkas to supply water and fuel. Silk waste which consists of dead chrysalides, etc., is never cleaned.

28. The actual cost of equipment for an establishment with 8 reels is furnished below (belonging to a reeler at Thimmarajapuram village of Kollegal taluk):—

Non-recurring.

No.	Particulars.	Quantity.	Value. Rs. A.
1.	Constructing the ovens	8	4 0
2.	Reels and polls . . . . .	...	24 0
3.	Copper basins	8	40 0
4.	Water drums	2	3 0
5.	Stands at Rs. 3 each	6	18 0
6.	Trays at 5 trays per rupee	144	28 13
7.	Water pots	4	3 0
8.	Water carrying polls	2	0 4
9.	Steaming baskets	4	1 8
10.	Ant wells at As. 6 each	24	9 0
11.	Baskets	8	0 12
12.	Bags	4	0 12
Total			133 1

So, for one basin=Rs. 16-10.

N.B.—If mud basin is used instead of the copper basin it will cost only As. 8 a basin. So, the non-recurring charges will be decreased by Rs. 5 minus As. 8, i.e., Rs. 4-8 per each basin. Hence the initial cost of equipment for hand reeling for one basin with mud pot will be Rs. 16-10 minus Rs. 4-8, i.e., Rs. 12-2.

Recurring.—House rent—Rs. 3 a month.

Payment of house rent is exceptional. Generally the reelers do it in their own premises.

The outturn varies according to the quality of silks reeled and the skill of the workmen. A country reeling basin yields on an average:—

I Quality silk—60 tolas or 1 lb. 20 tolas per day.

II Quality silk—75 tolas or 1 lb. 35 tolas per day.

III Quality silk—90 tolas or 2 lbs. 10 tolas per day.

Bamboo articles last for 2 years.

Wooden parts last for 5 years.

Copper basin last for 4 to 5 years.

Water drums last for 4 to 5 years.

Water pot last for 2 years.

Bags last for 1 year.

Steaming bamboo baskets last for 2 years.

Mud basin last for 1 to 2 years.

29. The total works expenditure upon reeling for the last five years is as follows:—

	Rs.
1933-34	3,73,486
1934-35	3,71,313
1935-36	3,39,343
1936-37	3,77,265
1937-38	5,43,412

The average cost of producing 1 lb. of raw silk in country charkas for the last five years:—

	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Cost of cocoons	2 13 0	3 3 4	3 8 11	3 12 3	4 6 4
Cost of labour—					
Reeler	0 3 0	0 2 6	0 2 6	0 2 6	0 2 6
Turner	0 1 0	0 1 0	0 1 0	0 1 0	0 1 0
Cost of water and soap	0 1 0	0 1 0	0 1 0	0 1 0	0 1 0
Cost of fuel	0 2 0	0 2 0	0 2 0	0 2 0	0 2 0
Cost of supervision and management.	0 0 6	0 0 6	0 0 6	0 0 6	0 0 6
Cost of repairs and maintenance.	0 1 0	0 1 0	0 1 0	0 1 0	0 1 0
Selling expenses	0 0 6	0 0 6	0 0 6	0 0 6	0 0 6
Cartage of cocoons	0 1 6	0 1 6	0 1 6	0 1 6	0 1 6
Other expenses	0 1 0	0 1 0	0 1 0	0 1 0	0 1 0
Total	3 8 6	3 14 4	4 3 11	4 7 3	5 1 4
Less cost of $\frac{1}{2}$ lb. waste	0 0 6	0 0 10	0 1 3	0 1 9	0 2 9
Net cost of reeling a lb.	3 8 0	3 13 6	4 2 8	4 5 6	4 14 7

Works cost of reeling by a charka per day, works cost of reeling one pound of raw silk of different qualities by using Mysore cocoons, etc.

No.	Particulars.	I Quality.	II Quality.	III Quality.
		Rs. A. P.	Rs. A. P.	Rs. A. P.
1.	Cost of cocoons—			
	23 lbs. at As. 4-6 a lb. .	6 7 6	...	...
	24½ lbs. at As. 4-6 a lb. .	...	6 13 8	...
	27 lbs. at As. 4 a lb. .	...	...	6 12 0
2.	Cost of labour—			
	Reeler	0 6 0	0 5 0	0 5 0
	Turner	0 2 0	0 2 0	0 2 0
3.	Cost of water and soap .	0 2 0	0 2 0	0 2 0
4.	Cost of fuel	0 3 0	0 3 0	0 3 0
5.	Cost of supervision and management	0 1 0	0 1 0	0 1 0
6.	Cost of repairs and maintenance	0 1 6	0 1 6	0 1 6
7.	Cartage of cocoons	0 3 0	0 3 0	0 3 3
8.	Selling expenses	0 1 0	0 1 0	0 1 6
9.	Other expenses	0 1 6	0 1 6	0 1 6
10.	Less cost of silk waste—			
	1 lb. at As. 5-3	0 5 3	...	...
	½ lb. at As. 5-3 . . . . .	...	0 4 11	...
	¼ lb. at As. 5-3 . . . . .	...	...	0 3 11
11.	Therefore, total works cost for silk—			
	60 tolas	7 7 3	...	...
	75 tolas . . . . .	...	7 12 9	...
	90 tolas . . . . .	...	...	7 12 10
12.	Hence work cost for reeling one lb. of silk by charka at present .	4 15 6	4 2 6	3 7 6
13.	Renditta	15·3 lbs.	13·0 lbs.	12·0 lbs.
14.	Average cost of producing 1 lb. of silk		Rs. 4-3-2	
15.	Renditta (average)		Lbs. 13·4	

The above figures are based on the present market rates for cocoons. The renditta for cross-breed cocoons is:—

	Ibs.
I quality	14·3
II quality	12·0
III quality	11·0

All other costs remain the same.

The cost of producing 1 lb. of raw silk in the Japanese foot reeling machine of the Department is:—

	Rs. A. P.
1. Cost of cocoons—16 lbs. at As. 4-6	4 8 0
2. Cost of labour—	
Reeler	0 6 0
Re-reeler	0 2 0
3. Cost of water and soap . . . . .	...
4. Cost of fuel	0 1 6
5. Cost of supervision and management . . . . .	...
6. Cost of repairs and maintenance	0 1 0
7. Selling expenses	0 0 6
8. Other expenses	0 1 0
9. Cartage of cocoons	0 1 9
10. Oil	0 0 3
Total	5 6 0
Less $\frac{3}{4}$ lb. of improved waste at As. 6 a lb.	0 4 0
Net cost of 1 lb. of silk	5 2 0

Information as to the works cost of reeling one pound of raw silk in a filature is not available. The Managing Agents of the Kollegal Silk Filatures, Ltd., will be in a position to answer this question.

Reeling establishment of Sri Krishnappa of Singanallur village, whose silk has got a good reputation in the South Indian market.

For every seven maunds of cocoons he gets six maunds of cocoons after steaming and conditioning (pure Mysore). For each reeler he gives 20 seers a day for reeling (conditioned weight of the cocoons). Each man reels a lb. of high quality silk. He reels three skeins instead of four in order to maintain uniformity. He also gives a twist and joins broken threads. He is using the improved reeling accessories supplied by the Department such as pulleys, buttons, etc. For every lb. of silk reeled he gets $\frac{1}{8}$ lb. of waste on an average. The reeling charges are:—

	As. P.
Reeler	6 0
Turner	2 0
Fuel	3 0
Water	1 0
Supervision and management	1 0
Repairs	1 0
Total	14 0 a day.
Less cost of $\frac{1}{8}$ lb. of waste at As. 8 per maund	3 3
Net reeling expenses	10 9

He buys cocoons from his own village and so he does not pay for transport. He generally gets cocoons for As. 4 less than the market rate because he pays ready cash and has regular customers. Sometimes he also advances

money for cocoons purchase and lends money in times of need to the rearers. From every seven maunds of cocoons (pure Mysore) he gets 12 lbs. of silk. For every six maunds of cross-breed cocoons he gets 12 lbs. of silk. He paid in the beginning as much as a rupee more for every maund of cross-breed cocoons but he now pays only As. 4 extra per maund. He reports that the waste is almost the same in both the varieties of cocoons.

30. Indian filatures are at a disadvantage in reeling silk from cocoons of inferior silk contents. It is difficult to maintain a uniform denier with these cocoons unless the reeler is highly skilled. Except the Chinese multivoltine cocoons, the renditta of all other varieties of foreign cocoons is 9 lbs. of green cocoons to 1 lb. of silk (1 quality) and the waste is $\frac{1}{2}$ lb. whereas it is not less than 16.66 lbs. for the same quality of silk in Kollegal. At this renditta the price of Mysore cocoons is higher than the Japanese cocoons for producing a lb. of raw silk. Other working costs are much higher in Japan than in Kollegal. The reelers are also very efficient in Japan and Italy whereas they have yet to become efficient in Kollegal. A statement of expenditure for producing 133 $\frac{1}{2}$ lbs. of silk in Japan in 1933 is furnished below:—

"The following figures on the cost of producing one bale or 100 kin or 133 $\frac{1}{2}$ lbs., of raw silk are taken from the averages of many filatures located in different districts of Japan. Where there is a wide variation in these costs, it reflects largely upon the efficiency of the management. I believe these figures are sufficiently accurate to give a clear understanding of the various costs and how this affects the price of raw silk. The net expenses for producing 100 kin of white raw silk of $\frac{11}{16}$ denier size are as follows:—

	Yen.
1. Cost of cocoons at 3.66 yens per kamme of cocoons, i.e., 8.26 lbs.	532.00
2. Cocoons buying and drying	20.00
3. Interest on money borrowed to finance cocoon purchases	15.00
4. Reeling	50.00
5. Re-reeling	3.50
6. Salary (supervisor and clerical)	8.00
7. Food	20.00
8. Fuel	25.00
9. Selling	16.00
10. Taxes and insurance	20.00
11. Hiring help	5.00
12. Travelling and entertainment	5.00
13. Miscellaneous	20.00
Total	739.50

In reeling 20/22 denier silk, the reeling or production expenses is 30 yens to 50 yens less per 100 kin than for reeling 13/15 denier size."

31. A filature of 150 basins has been started in Kollegal but it is too early to say whether a filature of this size represents an economic unit.

32. It is expected according to the prospectus of the Kollegal Filatures, Ltd., that the filature will be in a position to produce 53,400 lbs. of raw silk a year when it is in full working order. The filature started working only in December, 1937, on a restricted scale and information is not available in regard to the output of (a) raw silk and (b) waste.

33. The number of people engaged in each branch of the Sericultural Industry during 1933-34 and 1937-38 are furnished below:—

	1933-34.	1937-38.
1. Silkworm rearing (families)	7,500	7,500
2. Silk reeling	2,000	2,000
3. In casual work such as leaf picking, mulberry cultivation, manufacture of appliances such as reeling machines, trays chandrikais, stands, pairing and isolation of moths such as doubling, twisting, bleaching, dyeing, etc.		Not known.
4. Silk weavers		Not known.
5. Silk throwers, merchants, brokers, etc.	Scattered all over the Presidency and so the figure could not be furnished.	

NOTE.—When the production of cocoons is more, the reeling basins are worked for a greater number of days during such seasons. The number of rearers are not generally reduced in spite of reduction in the acreage under mulberry because a rearer goes on rearing with the acreage he has. Mulberry land is sometimes converted into food crops and *vice versa*.

34. According to the prospectus issued by the Company the Kollegal Silk Filature is expected to give employment to about 375 persons when it is in full working order.

35. (1) The wages paid to charka reeler is As. 5 a day and turner As. 2 a day. No other basin is worked in Kollegal taluk. There is no information in regard to the wages paid in the power filature.

(2) Indian labour is not as efficient as the Japanese labour either in mulberry leaf picking, rearing of worms, or reeling of silk. The Japanese labourer wastes no time when picking leaves and therefore gathers a larger quantity of leaves per day. The Japanese rearer is literate and adopts any new method suggested by technical experts. The Japanese reeler who are all girls (in Kollegal we find both men and women as reelers) have supple fingers and are quick at their work and with great care they maintain a uniformity in thread, croisure, joining ends of broken threads, etc., thus maintaining better winding qualities of silk. The better variety of cocoons gives them a better chance for quality work. Moreover, the silk reeling work has become a hereditary occupation with many of the families in Japan, and so they have become skilled in the art of reeling silk. The Indian labourer is a good worker with very strict supervision but tends to slacken in the absence of it.

(3) Reelers are given practical training by the silk reeling demonstrator maintained by the Department. Rearers are allowed to undergo training in any of the Government silk farms free of cost. They are also taught microscopic examination of moths by the members of the Peripatetic Rearing Party, Kollegal. Practical training in Sericulture and Silk Reeling of an advanced type is given to the students in the Government Textile Institute, Madras. A Sericultural Instructor is maintained for the purpose. Five Sericultural Demonstrators are maintained to provide training for District rearers and reelers. The members of the Peripatetic Rearing Party who are stationed in 15 important rearing villages of Kollegal taluk go from door to door and impart instructions in rearing. The Farm Managers and the staff attached to the farms go round and teach the mulberry cultivators the method of pruning kinds of manures to be used and other cognate matters. The Thadaguni farm which is located in the

heart of the Kollegal sericultural area serves as a very good demonstration farm to the adjoining rearers. The Pathology Assistant has been instructing the rearers of the taluk regarding the incidence of contamination of diseases specially pebrine and how to combat the same. The rearers are benefited by the advice. In recent years the Sericultural section participated in several exhibitions all over the Province and demonstrated silkworm rearing, and reeling for the benefit of the agriculturists and the general public.

36-39. Not directly concerned.

40. Throwing is carried on as a separate business.

(i) The total works expenditure on throwing is Rs. 11,550 (900 lbs. of organzine and 100 lbs. of tram per month). The works cost of throwing 1 lb. of twisted silk by mill is:—

	Rs. A.
Single twist	0 10
Double—	
Fine denier	1 2
Thick denier	1 0
By charka—	
Single twist	0 8
Double twist	0 12

(ii) Cost of machinery is higher in India than Japan and so capital charge in India is higher. Laborers in Japan are more efficient and the winding qualities of Japanese silk are better and so the outturn is more. Banks in Japan advance money at cheaper rates of interest for working capital. There are no banks to advance money in Kollegal.

(iii) It is reported by Sri C. K. Nagiah, the owner of the Throwing Factory, Kollegal, that there is a unit of 96 spindles which is stated to be the economic unit. Its outturn is 10 lbs. per day of double twisted silk. The approximate cost of the machinery, etc., is reported to be:—

	Rs.
Twisting machines	1,750
Winding machines	550
Two reeling machines	250
Five horse power engine	600
Total	3,100

(iv) There are 964 spindles and the present outturn of 12,000 lbs. of twisted silk is reported to be the maximum capacity. Actual output is 1,000 lbs. of thrown silk per mensem of which 100 lbs. are single (tram) and 900 lbs. are double (organzine). Percentage of waste is 2½ seers for 60 seers, i.e., 4½ per cent.

(v) There are about 35 people engaged in the Throwing Mill. All of them have become skilled as the mill has been working for the last seven years having been started in 1931. There is no trouble in getting labour. It takes at least six months to acquire the necessary skill.

(vi) The rates of wages paid are:—

	Rs.	Rs. A.
Throwing—		
Mill	3 to 10	0 per mensem.
Charka	3 to 7	8 per mensem.

So far no facilities have been provided for technical education in throwing.

(vii) The block value of the Throwing Mill as it stood in the books at the end of the year 1937-38 is:—

	Rs.
Lease and concessions . . . . .	...
Lands	1,000
Buildings	10,250
	Rs.
Plant and machinery	16,500
	9,500
	3,500
	29,500
Other assets	1,500
Total	42,250

(viii) The estimated present day cost under the following heads is:—

	Rs.
Buildings	9,000
Plant and machinery	19,500
Other costs	7,000
Total	35,500

for erecting a mill having the same capacity as the above.

(ix) The buildings have been depreciated by 14 per cent., i.e., at 2 per cent. since 1931 and the machinery, by 17½ per cent. at (2½ per cent.). No reserve fund has been created from any source.

(x) The working capital required is Rs. 20,000 which is borrowed at 6 per cent. interest.

(xi) The machinery can be made in India (Bangalore) at about 5 per cent. cheaper. Indian made throwing machinery is reported to be stronger and more durable than foreign machinery from Switzerland.

41. The cost of Indian raw silk twisted per lb. is:—

Particulars.	Twisted in Mill.			Twisted by hand.		
	I Quality.	II Quality.	III Quality.	I Quality.	II Quality.	III Quality.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1. Price of raw silk.	6 10 3	5 2 8	4 5 0	6 10 3	5 2 8	4 5 0
2. Twisting and winding.	1 5 0	1 5 0	nil not twisted.	1 0 0	1 0 0	0 12 0
3. Boiling off .	..	..	..	0 2 0	0 2 0	0 2 0
Total .	7 15 3	6 7 8	4 5 0	7 12 3	6 4 8	5 3 0

The present price of raw silk is:—

	Per lb.
	Rs. A. P.
Charka—	
I quality	5 6 5
II „	4 3 2
III „	3 8 0

As regards filatures figures are not available.

2. Twisting and Winding charges are (Winding and Twisting go together):—

	Rs. A.
Mill—	
Double twist (organzine)—	
For fine deniers	1 8
For thick deniers	1 2
Single twist (tram)	0 12
Charka—	
Double twist	1 0
Single twist	0 12

3. *Boiling off*.—The percentage of boiling off is 23 in charka silks. Cost of boiling off is As. 2 per lb. in Kollegal which is uniform for all silks. This work is done by the weavers themselves.

42. There has been a good deal of improvement in the quality of silk reeled on country charkas. Some of them have taken to buttons and pulleys and are producing good quality silks. Krishnappa of Singanallur village who has got 12 basins uses these buttons and pulleys. The All-India Spinners' Association, Tiruppur, are negotiating to purchase all his output. Rachegowda of Surapuram village who has got 28 basins has also been trying with pulleys and buttons attached to his machines but his silk is sold below Krishnappa's rates.

The department is using a foot reeling machine and small reels for reeling the silk and re-reeling it afterwards, but no others have taken to re-reeling. The Rev. Buchanan of Kamakarai village worked with four machines of the above type for a long time. As the silks did not fetch the enhanced prices he expected in the local market he has suspended operations.

43. Re-reeling costs As. 2 per lb. of silk in the Departmental re-reeling machine. The reeler prepares cleaned waste and in addition she (generally women attend to this work) also attends to supply of water to the basin, lighting fire in the morning, etc.

If re-reeling is done immediately after reeling there is practically no loss. Even otherwise, the loss is $\frac{1}{4}$ oz., to a lb of silk re-reeled if the reeler and re-reeler are skilled workers.

44. None whatever.

45. The various industrial uses of raw silk in India are:—

- (1) Weaving of dress materials such as saris, rumals, shirting and suitings, etc.
- (2) Manufacture of surgical guts.
- (3) Weaving of detachable saree borders.
- (4) Core of gold thread.
- (5) Figurative work, etc.

The department has conducted experiments with a view to producing silkworm guts for suture purposes. No gut has been put on the market

because it has not been found possible to get a gut of the length required for surgical purposes though London opinion on the quality of the gut is very favourable. It is found that the length of the gut from pure Mysore worms does not satisfy surgical needs but that univoltine worms give a gut of the necessary length. Experiments are in progress with a view to ascertaining the best varieties of worms for gut production of longer lengths.

Mr. A. H. Whittle, a Nilgiri tea planter who is taking a lot of interest in this development with the co-operation of the department has produced guts from various varieties of worms. He reports that many of the surgeons in India to whom he has sent the sample guts are very pleased with the quality.

46. (i) The total demand in India for silk is unlimited but owing to various causes, the chief being the competition of foreign silks and their low prices as compared with Indian silks, the demand at present is limited.

(ii) The total production of raw silk in the Kollegal area was 110,641·8 lbs. during 1937-38 and it is all sold in India. It is reported that no stocks are left unsold in the Kollegal market.

47. The bulk of raw silk produced by charkas is sold in the Madras Presidency. Small quantities are sent to Dharwar, Hubli, Sholapur and Bagalkote in the Bombay Presidency. It is not possible to get from the reellers or merchants any reliable figures of the quantity of silk used by local weavers. A statement is appended showing the quantity of silk that was sent through the Railway Out Agency, Kollegal during 1937-38, and this will give a fairly good idea of the silk weaving centres where Kollegal silks are used. Some silk is brought also from villages in Mysore and booked in Kollegal.

No.	Name of the place.	Number of bales.	Total weight.	
			Ry. maunds.	Seers.
1.	Adoni	80	59	9½
2.	Arni Road	179	130	14½
3.	Ayyanupet	5	2	35
4.	Coimbatore	12	8	18
5.	Conjeeveram	232	132	37½
6.	Dharmavaram	250	200	12½
7.	Kumbakonam	567	473	8
8.	Panrutti	65	32	1½
9.	Paramagudi	3	3	11½
10.	Chittoor	nil.	nil.	nil.
11.	Madras	14	5	16½
12.	Valavanur	4	2	9½
13.	Tanjore	4	2	...
14.	Gadeval	16	9	19½
15.	Madura	6	5	16½
16.	Mayavaram	55	44	36
17.	Salem Town	3	2	5½
18.	Salem Market	28	27	7½
19.	Karaikudi	3	nil.	27
20.	Walaja Road	76	41	33½
21.	Rayadrug	10	5	39½
22.	Royalcheruvur	20	10	32½
23.	Kuttalam	31	24	36
24.	Gudiyatham	1	nil.	14

No.	Name of the place.	Number	Total weight,	
		of bales.	Ry. maunds.	Seers,
25.	Bagalkote	26	27	1½
26.	Wadibander	1	nil.	14
27.	Thirumayam	21	5	11½
28.	Hubli	6	3	9
29.	Bowringpet	10	3	23½
30.	Kurnool Town	13	8	22½
31.	Tumkur	3	2	13½
32.	Somanur	2	nil.	18
33.	Narasingepet	2	1	20
34.	Thiruvadamurudur	2	1	35
35.	Kolar	2	nil.	19½
36.	Tiptur	1	nil.	9½
37.	Pasupathicoil	1	nil.	26½
38.	Bangalore	219	204	18½
39.	French rocks	1	nil.	38
40.	Chickabalapur	1	nil.	10
41.	Mysore	7	4	...
42.	Dodbalapur	4	4	11
43.	Gundalpet	2	nil.	25
44.	Yeshwantapur	4	5	34½
Total		1,092	1,502	7½

Or 123,179·4 lbs.

Kollegal raw silk is generally consumed in the above weaving centres in India. There is no export trade in any variety silk from this Province. Until the advent of the Mysore Spinning Mills at Chennappa the waste was all exported, but only small quantities are exported now.

Marketing Methods Adopted.

Raw silk.—The local reeler both Kollegal and adjoining Mysore parts sells his silk either direct or through local brokers to the Kollegal silk merchants. Before they sell it to any individual merchant they take their silk to several places and get a valuation. This is done either by the reelers themselves or by their brokers. Generally the prices do not vary very much from merchant to merchant as there seems to be a sort of understanding between them in regard to the prices offered by them for different qualities of silk. The merchants by their long experience know exactly from which reeling establishment the silk has come from and offer their prices accordingly. During certain seasons merchants and master weavers from silk weaving centres like Conjeevaram, Kumbakonam, Madura, etc., come over to Kollegal and purchase silk direct. On account of competition the prices of silk generally go up a little during such periods. During certain seasons some of the reelers take their silks to the Bangalore market for sale. Generally silk merchants pay cash for the silk purchased. There are some reelers who take advances also from these merchants paying interest on the loans. The amount so advanced and the period of the loan depends on the stability and reliability of the reeler and the interest varies from 6 to 12 per cent. Most of the silk merchants book their goods to different weaving centres on prior orders through the Out Agency, Kollegal. Some of them send direct to Bangalore and Coimbatore through the motor

buses. A few bundles are also booked from Maddur Railway Station. The local Kollegal silk weavers purchase their silk requirements from the charka reellers.

Silk Waste.—There is only one important silk waste merchant in Kollegal who buys these wastes in large quantities and stores them until he is able to market them. He has almost monopolised this trade. He advances money to the various silk reellers and purchases their waste at rates fixed by him according to the demand from the European silk waste exporting firms of Madras and Bombay. Waste is purchased in Kollegal at 28 lbs. per maund and on a cash basis deducting the advance paid, if any. This system prevailed until the Channapatna Silk Spinning Mill started purchasing waste. Now there are a few merchants purchasing waste in the market for supply to the Mill. Higher prices are obtained for silk waste now.

48. Almost the whole of the silk produced in the Madras Province is used up locally. There was a small export of 22,400 lbs. of raw silk valued at Rs. 6,306 in 1936-37, but it is not known whether this represented an export of Mysore or Kollegal silk or of other silk imported originally into Madras from Bengal or Kashmir. It may be said that there has been no improvement with regard to exports of raw silk for the reason that the silk has not reached the standard necessary for the export trade. Now that filatures are coming into existence, it will be possible to reel silk of a quality suitable for export. It would assist to stimulate the establishment of filatures and to create an export trade if a conditioning house could be opened. At present there is no system of sorting and grading of raw silk and it is very desirable that a silk sorting and conditioning house should be established so that the silk may be passed through before it is placed on the market. Mysore silk is not known in the European or American markets and unless these silks are reeled in power filatures and then passed through rigid conditioning house tests, it will not be possible to develop an export trade in them. In fact if a world market is to be created for Indian filature silk, it will have to be graded and tested in a conditioning house and be sent directly to the buyers through the conditioning house in standard bales of a specified number of skeins with the conditioned weight duly certified. A small fee could be charged for tests undertaken in a conditioning house as is done in Kobe and Yokohama in order to defray the cost of establishment, etc.

49. The Railway freight paid from Kollegal to the Principal weaving centres are as follows:—

From	To	Dis- tance.	Freight per Railway maund 82 lbs.
		Miles.	Rs. a.
Kollegal O/A . . .	Maddur Railway station . . .	38½	0 14
Maddur R. S. . . .	Kumbakonam	391	3 15
Do.	Conjeevaram	329	2 14
Do.	Dharmavaram	155	2 5
Do.	Salem	210	2 12
Do.	Coimbatore	309	3 5
Do.	Madura	431	4 6
Do.	Arni	216	2 12
Do.	Bangalore	46	0 12

Many bundles of silk are sent by motor buses from Kollegal to Coimbatore and Bangalore. Bus rates vary and are not available. The consignments booked in the Out Agency are not generally insured. All consignments are sent by passenger train.

Tuticorin is the principal port of entry for silk bales arriving from Shanghai, Canton and Japan to the South Indian Weaving Centres:—The rates of railway freight per maund of 82 lbs. for silk yarn booked from Tuticorin to the Principal up-country markets are as under:—

From	To	Distance. Freight.		
		Miles.	Rs.	A. P.
Tuticorin . . .	Arni Road . . . . .	...	2	8 3
Do. . . .	Coimbatore	242	1	10 3
Do. . . .	Conjeevaram	392	2	9 9
Do. . . .	Kumbakonam	251	1	11 1
Do. . . .	Madura	99	0	11 4
Do. . . .	Salem Market	324	2	2 7
Do. . . .	Salem Junction	320	2	2 5
Do. . . .	Dharinavaram (vñ) Katpadi . . . . .	...	3	14 2

NOTE.—To be packed in water proof cloth, tarpaulins or other covering capable of keeping out water and oil— if no declaration is given, the sender must execute Risk Note Form "A". If the value exceeds Rs. 100 Risk Note Form "X" should also be executed.

On account of the opening of a branch of the well-known Japanese firm of Messrs. Mitsui Bussan Kaisha, Ltd., Madras, there are certain Indian silk merchants like Messrs. Nagindas Fookchand Chinai and the Andhra Engineering Co., who are operating from Madras. The two important markets in South India for foreign silks,—Japanese and Chinese—are Kumbakonam and Conjeevaram and from there, they are sent to other weaving centres. Most of the raw silk importers of Conjeevaram are getting their raw silk from Madras Port. These silks are reported to be sent from Madras to Conjeevaram by motor lorries and the transport charges are Rs. 12 for one bale of 133½ lbs.

50. From information gathered from various silk merchants at Kollegal, it is found that for the last five years, silks are sold to retail merchants or master weavers with a profit of two annas per seer of raw silk. Packing charges, freight, etc., are borne by the silk merchant in Kollegal. This comes to Rs. 6-9 for three maunds from Kollegal to Kumbakonam or Rs. 2-3 per maund of 25 lbs. or 40 seers. The Kollegal merchant gets 40×2 or Rs. 5 *minus* Rs. 2-13 on every maund of silk sold. This is the usual practice in Kollegal. When there is pressing demand and stocks are depleted an extra 1 anna per seer is charged. Generally Kollegal merchants do not like to lose their customers by charging arbitrary rates in order to avoid competition. They do not like even to divulge the names of the purchasers of their silks and they generally book their bundles of raw silk "To Self".

The sale prices in distant markets are reported to correspond generally with the purchase prices. The merchants in the different weaving centres do not disclose their selling prices. It is difficult therefore to find out the exact selling rates. But the merchants in Kollegal contend that they do not make much of a profit on account of the keen competition and the highest that they could get is about an anna a lb. after deducting all expenses like go-down rents, establishments charges, etc.

51. No facilities have been provided for sorting or grading of Kollegal silks. There is only an arbitrary sorting and grading known as I, II and III quality. This grading is not based on any scientific methods but on the reputation of the reeling establishments from which the silks are received. Even cocoons are not sorted for reeling purposes so as to produce high grade and low grade silks. The Mysore cocoon on account of its floss is difficult to be sorted or graded.

The industry is not in a position to bear any extra expenditure for providing an organisation to undertake this work of sorting and grading on scientific lines as the profits made by the silk merchants, reelers and cocoon growers have been next to nothing during the last five years because of the precarious condition of the industry on account of (i) unremunerative prices and (ii) Chinese and Japanese dumping and competition in spite of the enhanced duty.

52. The Mysore Chamber of Commerce prices are tabulated below:—

—	1933.	1934.	1935.	1936.	1937.	1938.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
January . .	5 8 6	4 0 6	4 3 6	4 6 0	5 5 0	4 9 6
March . .	5 7 0	4 3 6	4 7 0	4 3 6	5 14 0	4 9 6
July . .	4 6 6	4 0 6	4 3 6	4 1 0	5 5 0	4 8 0 in May
September .	4 3 6	4 5 0	4 4 0	4 2 0	5 2 0	..

The Kollegal silk prices for the corresponding months are furnished below:—

(I quality silk.)

—	1933.	1934.	1935.	1936.	1937.	1938.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
January . .	..	4 3 2	4 0 0	4 9 7	5 9 7	4 13 0
March . .	..	4 3 2	4 9 7	4 6 5	5 9 7	4 13 0
July . .	4 13 0	4 6 5	4 6 5	4 6 5	4 13 0	5 6 5
September .	4 9 7	4 13 0	4 6 5	4 6 5	5 9 7	..

(Average for I and II quality silks.)

—	1933.	1934.	1935.	1936.	1937.	1938.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
January . .	..	3 13 7	3 14 6	4 3 3	5 0 0	4 7 3
March . .	..	3 13 6	4 4 9	4 1 9	5 6 5	4 7 3
July . .	4 6 6	4 0 9	4 1 9	4 0 9	4 9 9	4 13 8
September .	4 2 6	4 6 6	4 0 9	4 0 9	5 3 3	..

The variations which are not pronounced may perhaps be explained by differences in quality and Kollegal and Bangalore prices.

53. A statement is appended showing imports of silk raw—

Imports of silk raw and manufactured from foreign countries by sea into Madras Province.

QUANTITY.						VALUE.				
1932-33.	1933-34.	1934-35.	1935-36.	1936-37.		1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
						Rs.	Rs.	Rs.	Rs.	Rs.
Lbs.	879,957	714,464	359,671	..	..	34,13,130	22,57,201	9,35,809	..	..
						SILK RAW AND COCOONS.				
						Cocoons.				
Lbs.	..	..	207,328	..	..	..	..	..	5,20,869	..
						Waste products including Duppon.				
Lbs.	..	..	2,488	5,546	..	..	..	..	6,094	15,216
						Hand-reeled.				
Lbs.	..	..	..	..	..	..	..	..	..	..
						Other sorts.				
Lbs.	..	..	247,165	469,935	..	..	..	..	7,00,528	16,85,705
						Silk yarn noils and warps.				
Lbs.	1,061	3,156	..	..	..	4,562	7,569	..	..	..

Lbs.	.	.	.	1,100	4,484	31,359	..	..	2,005	20,251	88,277
Lbs.	.	.	.	1,345	14,110	1,430	..	..	7,175	46,099	4,509
Lbs.	.	.	.	136	38	23	..	..	2,123	210	139
= Doz. pairs	.	.	.	= 135	= 24	= 29					
Yds.	.	.	.	..	35,000	8,656	..	..	..	6,914	5,467
Yds.	.	.	.	..	522,337	317,872	..	..	..	2,56,985	1,47,956
Yds.	.	.	.	..	490,168	490,271	..	..	..	2,82,605	2,75,724
Yds.	.	.	.	..	4,263	460	..	..	..	2,880	682

Made from silk other than waste or noils.

Made from silk waste or noils.

MANUFACTURES.

Hosiery-socks and stockings made chiefly of silk.

SILK PIECE-GOODS.

Ponje.

Fuji, boreki and corded (spun silk).

Crapes and georgettes.

Satins and taffetas.

Imports of silk raw and manufactured from foreign countries by sea into Madras Province—contd.

	QUANTITY.					VALUE.				
	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
						Rs.	Rs.	Rs.	Rs.	Rs.
Yds. . . . .	..	..	..	77,609	26,892	..	..	..	66,752	18,188
1,177,041	1,650,779	1,353,591	1,129,377	844,151	7,70,376	9,80,170	8,00,593	6,16,136	4,49,017	
752,603	392,247	389,643	74,333	104,013	2,35,572	1,71,101	1,85,051	42,052	52,990	
107	279	147	35	117	2,514	4,736	2,535	1,024	2,126	
479	1,013	1,581	1,761	1,157	5,834	13,281	13,663	16,162	12,362	
..	..	..	..	..	..	10,18,858	11,76,857	10,13,245	7,41,934	6,06,420

Others.

Total of silk piece-goods.

Goods of silk mixed with other materials.

Thread for sewing.

Other sorts.

TOTAL OF SILK MANUFACTURES (INCLUDING SILK YARN, ETC.).

The only merchants in Kollegal who import silk from foreign countries are:—

- (1) Messrs. Gurukar Veerappa, Silk Merchants, Kollegal and Conjeeveram.
- (2) Messrs. Gurukar Jothappa and Bros. of Kollegal and Kumbakonam.

The quantities imported by Messrs. Gurukar Veerappa is given below. The two firms were working jointly until July, 1937, and then separated. They have destroyed all their previous files. Hence only figures from July, 1937, can be given. True copies of some of their original invoices* are also attached.

Abstract.

No.	Quality.	Quantity.	Value.	Imported.	
				From	To
		lbs.	Rs. A. P.		
1	Japanese silk .	10,147	55,794 8 0	16th Sept. 1937	6th May 1938.
2	Chinese silk .	8,107	37,960 2 11	23rd July 1937	25th April 1938.
	Total .	18,254	93,754 10 11		

* Not printed.

नमो भगवते वासुदेवाय

Quantity and quality of foreign silks imported by Messrs. Gurukuttar Verappa, Silk merchants, Kollagal and Conjeevaram.

No.	Date.	Particulars.	Weight in lbs.	Cost.	Duty.	Clearing charges.	Total.
1	2	3	4	5	6	7	8
			lbs.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1	23rd July 1937	Shanghai—					
2	6th August 1937	Cock chap	694½	2,427 8 0	1,048 15 0	14 13 6	3,491 4 6
3	9th August 1937	Hand Reeled (No size)	298½	865 2 2	411 2 0	8 1 0	1,284 5 2
4	28th August 1937	Dupion White "Bat Wheel" —40/50	2,091½	7,983 0 0	C.I.F.	Madras.	7,983 0 0
		Minchow Filature 14/16 "Five Black Fishes"	131	534 14 0	210 0 0	4 14 0	749 12 0
5	3rd September 1937	Minchow Filature 14/16 "Loin Globe and Five Fishes"	518	2,162 2 2	793 15 0	16 4 0	2,972 5 2
6	16th September 1937	Minchow Filature 14/16 "Republic Flag and Hand reeled"	1,055	3,923 14 2	1,616 10 0	30 9 0	5,571 1 2
7	17th September 1937	"Two Golden dragons" 14/16	268½	846 13 0	406 9 0	10 2 6	1,263 8 6
8	1st October 1937	Minchow Filature 14/16 "Fathsin"	266½	1,136 4 0	408 1 0	8 4 6	1,552 9 6
9	1st October 1937	Minchow Filature 14/16 "Loin Globe Ho change and jewel pot"	690	2,433 15 0	1,044 11 0	20 10 0	3,499 4 0
10	2nd October 1937	"Wild" 14/16	133	579 5 0	206 12 0	5 2 0	791 3 0
11	8th October 1937	Minchow Filature 14/16 No chop	402	1,628 12 9	626 5 6	..	2,255 2 3
12	10th October 1937	Minchow Filature 14/16 "Blug K. K."	535½	1,967 13 0	761 4 0	4 0 0	2,733 1 0
13	15th October 1937	No size No chop	522	1,679 1 5	799 11 0	19 12 0	2,498 8 5
14	11th April 1938	No size "Double Eagle and Globe"	263	703 15 0	455 2 0	9 0 0	1,169 1 0
15	25th April 1938	No size "Eagle and Globe"	267½	734 12 3	411 5 0	..	1,146 1 3
		Total	8,107	29,407 3 11	9,201 6 6	151 8 6	38,960 2 12

Quantity and quality of foreign silks imported by Messrs. Gurukar Verappa, Silk merchants, Kollegal and Conjeevaram.

No.	Date.	Particulars.	Weight in lbs.	Cost.	Duty.	Clearing charges.	Total.
1	2	3	4	5	6	7	8
				Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1	16th September 1937	Japanese—	lbs.				
2	17th September 1937	"Hand Reeled" No size No chop	199½	1,179 1 0			1,179 1 0
3	5th October 1937	"Nikko chap" 13/15 Misso Co Tokyo	141	946 0 0			946 0 0
		"Dupion" No size "Bombay Jeevanlal's Photo"	137½	573 8 3			573 8 3
4	5th October 1937	Government "Sword chap" 13/15	1,308½	8,533 0 0			8,533 0 0
5	11th October 1937	Size 13/15—20/22	3,990	18,989 13 0	6,005 2 0	48 14 0	25,043 13 0
6	6th November 1937	Dupion 40/50 Bombay Jeevanlal's Photo	1,184	532 13 6			532 13 6
7	6th November 1937	Dupion—Bombay Jeevanlal's Photo	275½	1,069 9 0			1,069 9 0
8	10th November 1937	Hand Reeled No size and No chop	348½	1,839 4 9			1,839 4 9
9	10th November 1937	Dupion—40/50 Bombay Jeevanlal's Photo.	1,378½	5,389 7 0			5,389 7 0
		Canton—					
10	2nd April 1938	No chop 20/22	212½	989 0 9			989 0 9
11	19th April 1938	20/22	211½	964 14 0			964 14 0
12	25th April 1938	20/22	215	962 1 9			962 1 9
13	2nd May 1938	20/22	530½	2,357 11 0			2,357 11 0
14	6th May 1938	20/22	1,060	4,814 4 0			4,814 4 0
		Total	10,147	49,140 8 0	6,605 2 0	48 14 0	55,794 8 0

54. All imported silks can be classified under the following classes:—

1. Japanese steam filature re-reeled silks. There is no class of Indian silks to be compared with this quality.
2. Steam filatures silks (I qualities of Chinese silks). Corresponding to Indian filature silks.
3. All other sorts (all Canton filature silks and also II quality Shanghai filature silks). Corresponding to I and II quality charka silks.
4. Waste products Corresponding to III quality charka silks.
5. Duppons (China and Japan) Corresponding to II quality charka silks.
6. Hand reeled Corresponding to II quality charka silks.
7. Hand re-reeled silks No class.

All the above kinds of imported silks are used by the handloom weavers. Since price is the deciding factor as far as the Madras Handloom Weavers are concerned cheaper qualities of hand-reeled duppons and waste products are largely used. High grade silks are used for quality weaving with or without gold borders.

Quality.	Ex-duty value per lb.	Present market value per lb.
	Rs. A. P.	Rs. A. P.
(i) Japan re-reeled—		
Superior pancy poppy	3 9 0	5 10 0
Nikko	3 14 0	5 15 0
Common pheasant	3 5 0	5 6 0
(ii) Steam filatures—		
Minchow on 14th July, 1937	4 14 6	6 6 0
Japan was at that time	5 0 0	7 1 0
Canton filature	2 10 9	4 6 6
Japan duppion	2 13 0	4 3 6
Japan hand reeled, white	3 14 0	5 6 0
Chinese duppion—June, 1937	3 4 6	4 2 6
Minchow filature	2 2 0	3 13 6
Canton	2 6 3	4 2 0
		(June, 1938.)

N.B.—Since Shanghai used to be the port of importation for the following classes of silk:—

- (1) Native re-reeled.
- (2) Native hand-reeled.
- (3) Waste products and duppion silks, the trade on these is totally disorganised, due to the war in the Far East and very little silk is now leaving Shanghai. Recently a consignment of Minchow filature silk has been received at \$470 per picul exchange rate being 53 by Messrs. Gurukar Jothappa and Bros. This price works out to Rs. 2-2 per lb. including (freight, insurance) and landing charges, etc.

55. It is difficult to say to what extent artificial silk and staple fibre compete with Indian raw silk. It is not likely that natural silk will at any time be entirely displaced by substitutes. In South India, the demand for Indian made silk by the rich and middle class who are accustomed to wearing silk sarees and to washing them almost daily, is fairly constant.

Artificial silk and staple fibre sarees do not stand the rough handling by the Indian dhoby or constant washing at home. They do not therefore appear to be in favour to any great extent by the middle classes, and hardly at all by the rich. The lower middle classes who used to buy silk goods occasionally on marriage occasions, etc., are inclined now to buy artificial silk sarees on account of their comparative cheapness and bright appearance. The value of imports of real silk, artificial silk goods and artificial silk yarn for weaving purposes during the years 1936-37 and 1937-38 are extracted below:—

	Value of imports. 1936-37. Rs.	Value of imports. 1937-38. Rs.
Silk	23,09,341	36,94,354
Artificial silk	25,07,479	48,05,579
Artificial silk yarn, piece-goods and mixed goods	24,99,480	47,91,539
Piece-goods (silk and artificial silk)	9,77,825	17,84,092
Silk and artificial silk from Japan	41,68,668	74,86,558

50. It would appear that raw silk imported from Japan and China are at times placed on the Indian market at prices which do not cover the cost of production. When the Sericultural Expert visited Japan in 1933 on deputation, he gathered that the cost of producing 1 lb. of silk was 5.60 yen. In 1935 the cost of producing 1 lb. of raw silk was 1.43 yen and the price of cocoons varied from 3.50 yen for spring cocoons to 6 yen for the summer-autumn crop per kamma (i.e., 8.26 lbs.). At the price of 3.50 yen, the cocoon producer is reported to be able just to make both ends meet and in the summer-autumn crop, his expenses for raising the cocoons is 4 yen and by selling them at 6 yen, he makes a profit of 2 yen. According to the "Silk Journal and Rayon World", the price of cocoons during March and April, 1938, was 4.81 yen and taking on an average 4.75 yen for 8.26 lbs., the cost of reeling 1 lb. of raw silk (the rendita on an average being 9 to 1 lb. of silk) comes to 6.61 yen which is higher than in 1933. White silk costs a little more than yellow. The following table shows the prices at which Japanese and Chinese silk are sold in the American and Indian markets and it would appear therefrom that these silks are sold in the Indian markets at rates below the cost of production:—

Month.	American market.		Indian market.	
	Japanese.	Chinese.	Japanese.	Chinese.
	\$	\$	Rs.	Rs.
January 1933 . . .	1.67½ to 1.92½	1.05 to 1.50	..	..
April 1933 . . .	1.25 to 1.42½	0.90 to 1.15	..	..
February 1934 . . .	1.57½ to 1.92½	1.12½ to 1.60	..	..
May 1934 . . .	1.30 to 1.65	0.95 to 1.50	..	..
March 1935 . . .	1.47½ to 1.85	1.15 to 1.40	..	..
June 1935 . . .	1.55 to 1.90	1.15 to 1.45	..	..
August 1935 . . .	1.57½ to 1.90	1.25 to 1.45	4.2 to 4.3-11	..
January 1936 . . .	2.0 to 2.20	1.25 to 2.10	5.0 to 6.2	4.14
May 1936 . . .	1.67½ to 1.82½	1.15 to 1.65	4.11 to 5.2	4.10 to 5
March 1938 . . .	1.47 to 1.78	..	5.10 to 5.15	4.15
April 1938 . . .	1.51 to 1.82	..	..	..

57. The imported silk is far superior to Indian silk in winding qualities and percentage of loss in degumming. But in lustre and tensile strength the Indian silk is superior. The difference in price is not so much due to these considerations as to economic and exchange factors as well as to the assistance given by the respective Governments of Japan and China to relieve the distress of the farmers who raise cocoons when prices fall down. The price of silk alone is the deciding factor as far as the Indian weaver is concerned.

58. The fall in the exchange rates of China and Japan has intensified the competition which Indian silk has to meet, the continuous fall in the exchange value of Chinese currency contributing to the deterioration in silk prices. The collapse of the Chinese exchange as a result of the China-Japanese war constitutes a new danger to the Indian silk industry. It is understood that a new currency has been issued in China and how this will affect silk prices it is too early to predict. An instance has come to notice where five bales of filature silk "Shansee Extra" has been purchased at Shanghai by a silk merchant in Kallungal at an exchange rate of 52 and 53 per 100 dollars. This work out to from Rs. 3-12 to Rs. 3-13-6 after allowing for freight, insurance, duty, etc. If this low rate of exchange, which is an outcome of the war persists, it will be a serious menace to the Indian silk industry which requires immediate safeguarding against further unfair competition. Whether the war continues or is brought to a conclusion, it does not seem likely that a crippled China and a war exhausted Japan will stabilise their currencies for a considerable time. The competitive advantage which Japan and China have derived by depreciating their currencies is therefore likely to continue and the danger of a still further worsening of the position should be met by taking timely steps.

59. The position has not changed since the last Tariff Board enquiry.

60. No silk waste is imported into the Madras Presidency. Even the silk waste produced in the Presidency is not made use of locally.

61. The percentage of waste obtained from silk reeled in charkas is:—

I quality	3 lb. waste for 1 lb. silk.
II „	4 lb. waste for 1 lb. silk.
III „	5 lb. waste for 1 lb. silk.

62. It is true that the prosperity of the raw silk industry depends to a certain extent upon the price paid for silk waste. The average prices obtained during the last five years are given below:—

	Per lb.
	As. p.
1933-34	1 2
1934-35	1 7
1935-36	2 5
1936-37	3 10
1937-38	5 6
1938-39	5 3

63. Cross-breed seeds are being reared at present and in the years to come only cross-breeds which are popular with the rearers will be reared. The cross-breeds give a better outturn of cocoons and the reeler also gets a better cocoon to reel. The percentage of waste in reeling cross-breed cocoons is almost the same as in the case of pure Mysore cocoons if double cocoons in cross-breeds are taken into consideration. Reelable cross-breed cocoons contains less waste than the Mysore but double cocoons bring up the percentage of waste to the same level as that of Mysore.

64. No spinning plant has been set up in the Madras Province.

65. Information is not available. It is understood that the Kollegal Silk Filatures, Ltd., are obtaining their new basins from an engineering workshop in Pondicherry.

66. The following statement shows the exports of waste from 1933-34 to 1936-37. Figures for 1937-38 are not available.

	Lbs.	Rs.
1933-34	46,836	6,141
1934-35	188,057	28,223
1935-36	330,017	70,433
1936-37	228,096	68,149

If the spinning plant that has been set up at Chennapatna, Mysore State, is able to consume all the waste that is produced, there should be no need to export waste hereafter. If the Chennapatna factory is successful there should be scope for the setting up of another similar mill in Madras. In order to stimulate the development of the silk industry, the spinning mill should be prepared to pay a reasonable price for silk waste.

67. The following statement shows the exports of (i) Goods of silk mixed with other materials and (ii) Silk Piece-goods from 1932-33 to 1936-37:—

<i>Goods of silk mixed with other materials.</i>		
Year.	Yds.	Rs.
1932-33	220,919	89,805
1933-34	8,850	2,980
1934-35	67,581	31,153
1935-36	235,501	68,544
1936-37	582,944	1,55,133

<i>Piece-goods.</i>		
	Yds.	Rs.
1932-33	32,091	26,110
1933-34	20,953	13,652
1934-35	90,584	95,292
1935-36	47,316	36,246
1936-37	68,618	55,007

It will be seen from the statement that exports during the last five years have fluctuated considerably and that the highest volume of exports was recorded in 1934-35.

68. The classification and Tariff Valuation of imported raw silks for Customs purposes are not suitable. The present classification is as follows:—

Silk, raw (Excluding silk waste and noils) and silk cocoons.	25 per cent. <i>ad valorem</i> plus 74 annas per lb.
Chinese—	Rs. A.
Waste products	1 10
Dupion all kinds	2 2
Hand reeled (excluding re-reeled)	2 8
All other sorts	3 7
Japanese filatures	4 12

The classification does not appear to have any proper scientific or technical basis for though there are many qualities and varieties of Japanese silks

imported into India, the classification is restricted to a few classes of goods only. Invoice values alone will reveal correct prices and should be taken as the basis for classification. The Tariff category "All other sorts" includes high quality filature silks and inferior quality filature silks of China, and though their prices vary considerably they are classed as one for the purpose of calculating the Tariff value. Similarly, in the case of "Japanese filatures", they should be classified under different deniers such as 13/15, 20/22, etc., thus dividing the re-reeled silks into different qualities at different prices. Japanese yellow and white should also be valued differently. In view of the fluctuations, both in the price of silk and the exchanges, and also the difficulty of classification of different varieties of silk by the Customs authorities, the levy of a specific protective duty instead of an *ad valorem* duty is recommended. It is also considered that the Governor General in Council should be empowered to vary the duty as and when necessary. If *ad valorem* duties are retained, however, invoice values should be taken as the basis of calculating duty, in which case, as compared with the present position, not only would increased revenue accrue to Government but the price level of indigenous silk should be raised to a slight extent.

69. In 1932, the import duty on raw silk was 25 per cent. calculated on tariff value *ad valorem*. In order to estimate the measure of protection needed, the Tariff Board classified the competing varieties of silk into two main divisions and compared (a) the prices of imported filature and re-reeled silks with the prices of first quality Indian charka silks and (b) the prices of imported hand reeled silk and duppons with the prices of second and third quality Indian charka silks. At the time of the Tariff Board enquiry, they observed that the average selling price of imported filature and re-reeled silk was Rs. 4-11, the *ex-duty* price being Rs. 3-12 per lb., whilst the average selling price of first quality Indian charka silk was Rs. 6-2-6 or Rs. 3-12 plus Rs. 2-6-6. Again, the average selling price of imported hand reeled silks, and duppons was Rs. 3-5-3, the *ex-duty* price being Rs. 2-10-7 per lb. while the average selling price of second and third quality charka silks was Rs. 5-0-10, the difference in this case being Rs. 2-6-3. The Board therefore recommended a specific duty of Rs. 2-6 per lb. on raw silk or an *ad valorem* duty of 50 per cent. whichever was higher. It was considered that such increased duties would afford just sufficient protection for filature silk as well as charka silk. The Tariff Board foresaw the possibility of their measure of protection proving inadequate and they suggested that if the prices of imported silks should fall below the basic level it would be necessary to apply the relevant provisions of the Safeguarding of Industries Act, 1933. Soon afterwards, however, the Safeguarding of Industries Act ceased to operate. The Government of India were pleased to accept the recommendations of the Tariff Board for an all round revision of the duties on silk but the relief actually afforded through the Tariff Protection Act (raw silk 25 per cent. *ad valorem* plus As. 14 per lb.) has been found to be inadequate.

(a) It is considered that the levy of a specific protective duty of Rs. 3-10 per lb. on all varieties of imported silk constitutes the minimum amount of protection necessary for the development of the sericultural industry. If a lower rate of duty than this is levied, it is considered that an import quota should be fixed for all foreign raw silks and for silk piece-goods also.

(b) It should definitely be given in the form of a specific protective duty instead of an *ad valorem* duty in view of the difficulty of classification of different varieties of silk by the Customs authorities.

(c) The period for which protection is granted should be at least ten years. In order to permit of the development of a silk spinning industry or alternatively to enable an export trade in clean waste to be developed, the payment of a bonus of annas two for every lb. of clean waste produced by the charka reellers is advocated. This may be granted as a subvention for a period of five years.

Reasons.

A. In order that the sericultural industry may exist and develop, it is very necessary that the rearer mulberry cultivator who raises the cocoons, the reeler who converts the cocoons into silk and the merchant who markets the silk should be able to realise a reasonable profit. The mulberry leaves as such cannot be disposed of throughout the year and so the mulberry cultivator rearer is compelled rear silk worms which means that he has to put in extra labour. The labour of himself, his wife and his children or family helpers must necessarily be taken into account in considering the economics of the industry. The present market rate for one pound of cocoons is about As. 4-6 but the price fluctuates according to the market price for silk which governs the price of cocoons. At this rate the rearer and his family get 210 (quantity of cocoons per acre of mulberry) \times As. 4-6 minus Rs. 47 (details given under question 23) or Rs. 59-1 minus Rs. 47 = Rs. 12-1 as income per acre of land. But the cultivator would be able to realise Rs. 8-3-6 (details given under question 17) if he bestowed the same amount of labour on the cultivation of ragi as he devotes to the cultivation of mulberry. The difference in the return is not sufficient to compensate for the labour which has to be expended on silk worm rearing. This has in large measure stultified the natural development of the sericultural industry. On full consideration of all the relevant facts the last Tariff Board decided to base their recommendations on a cocoon price of five annas a pound. It is considered that annas five a pound would be a fair selling price of cocoons if allowance is made for the labour expended by the rearer and his family and in this case the rearer would realise $210 \times$ As. 5 or Rs. 65-10 if he rears Mysore cocoons, or $245 \times$ As. 5 or Rs. 76-9 if he rears cross-breed cocoons. This would bring him Rs. 65-10 minus Rs. 47 or Rs. 18-10 in the case of pure Mysore cocoons or Rs. 76-9 minus Rs. 48-2 or Rs. 28-7 in the case of cross-breeds. As a combined industry therefore he would get Rs. 18-10 minus Rs. 8-3-6 or Rs. 10-6-6 more than ragi for pure Mysore and Rs. 28-7 minus Rs. 8-3-6 or Rs. 20-3-6 for cross-breeds, i.e., Rs. 10-6-6 plus Rs. 20-3-6 or Rs. 30-10-2 or Rs. 15-5 on an average for his labour in raising seven crops of Mysore and cross-breed cocoons per annum. This works out to Rs. 15-5/7 or Rs. 2-3 for each rearing in addition to the silk worm litter he gets as fodder for his cattle and the mulberry prunings as fuel. Parenthetically it may be mentioned here that the cost of producing one pound of cocoons at the Thadaguni Farm is As. 5-9 per lb. At annas five per pound of cocoons, the cost of production for one pound first quality charka silk, which to a certain extent competes with the imported Canton and Shanghai filature silks, is Rs. 5-7-2. The fair selling price may therefore be fixed at Rs. 5-7-2 plus annas five or Rs. 5-12-2 or Rs. 5-12 which would leave a reasonable, but not excessive, margin of profit for the rearer and the silk merchant and a commission for the broker. Under present conditions the silk reeler and the silk merchant get very little for their labour and investment and but for the staying power shown by them in the face of keen competition from foreign silk, the industry would have died out. The ex-duty price (latest) of imported Shanghai filature silks comes to Rs. 2-2 per lb. vide question 54. A specific duty of Rs. 5-12 minus Rs. 2-2 per lb. on all imported silks is therefore recommended.

It would appear from the increase in imports of Japanese silks during the last few years that the future competition will be more from Japanese quality silks than from Chinese silks. This competition can only be met from filature silk. With the development of the filature industry the charka silk industry will tend to decline and in all probability ultimately to disappear. The basis of the protective duty must therefore be considered also in relation to the fair selling price of Japanese re-reeled silks. On the basis of information supplied by the Kollegal Silk Filatures, Ltd., and on a cocoon price of annas five per pound, the cost of production of filature silk comes to Rs. 6-7 per lb. allowing for interest at 6 per cent. on the capital. The fair selling price should not be fixed at less than Rs. 7 allowing for

the fact that Indian filature silks can never compete with Japanese re-reeled silks on equal terms. The prices of Japanese 20/22 denier silks at Bombay on 25th June, 1938, was between Rs. 5-6 and Rs. 5-7, representing an ex-duty price of Rs. 3-6. It is considered therefore that the duty should be Rs. 7 minus Rs. 3-6 or Rs. 3-10. A specific protective duty of Rs. 3-10 on all imported varieties of silk is recommended as a duty at this rate would protect both the charka and the filature industry. There should be a corresponding increase in the rate of duty on silk yarn, spun silk and thrown silk as otherwise the Indian silk industry would be at a great disadvantage. The rate of duty on silk piecegoods should also be raised to a sufficient extent in order to give the necessary relief to the Indian silk handloom weavers as otherwise there would be an increase in the imports of woven goods to the detriment of the handloom weaving industry.

B. As already stated, the protection should be given in the form of a specific protective duty.

C. In spite of the several improvements introduced during the last five years (details have been given in answer to question 72) the industry has not made any appreciable progress and it is very necessary that the protection granted in addition to being given on a sufficiently liberal scale should be granted for a sufficiently long period, i.e., for at least ten years. It is also suggested that out of the proceeds of the revenue derived from the imposition of the enhanced duty, an increased amount should be granted as subsidy to the sericultural provinces in proportion to their population for the development of the sericultural industry.

The silk spinning section of the silk industry needs active encouragement. As long, however, as the charka industry exists the waste that the spinning mill gets will contain dirt and chrysalides. Every attempt made during the last 18 years to get clean waste produced has failed. It is therefore recommended that a subsidy payment of annas two should be given for every lb. of clean waste prepared by the charka reellers. This concession need not be given for more than five years as by that time the charka reellers will either be greatly reduced in number as a consequence of the introduction of filatures or they will have become accustomed to cleaning their waste. In the case of the Madras Province, the cost of the subvention would not be more than $\text{Rs. } 55,000 \times \frac{1}{4} = \text{Rs. } 6,875$ or say Rs. 7,000.

70. Any increase of duty on raw silk will raise the price of silk textile manufactures and silk handloom manufactures proportionately. There should therefore, be a corresponding increase in duty on imported silk manufactures sufficient to bring the price of imported fabrics up to the level of the fair selling prices of indigenous handloom products. Otherwise, the effect of an increase in the duty on raw silk would be the flooding of Indian markets with cheap imported silk manufactures instead of raw silk, especially from Japan. Unless the Indian silk manufactures are equally protected, the Indian silk textile industry and the handloom industry would be very seriously affected. Since the enhancement of duty in 1934, the number of handlooms engaged on silk weaving has not shown any marked decline. It would be of assistance to the handloom industry if an import quota could be fixed for imported silk fabrics in which case other industries like curio of gold thread manufacture and lace borders would begin to use Indian filature silks and thereby stimulate the development of the silk industry.

71. The proportion of the cost of raw silk to that of twisted silk varies with individual factories and also according to the quality of reeled silk used and whether the silk is twisted on the charka or by power driven machinery and the value of the silk. It varies from 80 to 85 per cent.

48 to 50 per cent. is the proportion of the cost of raw silk to silk piecegoods and this varies according to the weave of the cloth, plain, check pattern, etc.

72. The protection granted in 1934 has been beneficial to the industry to the extent that the Tariff Board in their report clearly brought out the

inherent defects of the indigenous silk industry, as a result of which the various Governments and States interested in Sericulture came to definite conclusions as to the measures necessary for improving the industry. Advantage was taken by several Provincial Governments of the financial assistance provided under the Government of India subvention scheme to institute measures for the improvement of the industry. For example, research on pebrine disease has been undertaken, whilst 93 per cent. of the total seed requirements of Kollegal and the other district centres of the Presidency is now met by departmental agency. This itself is a great achievement and will result eventually in the entire seed supply of the Presidency being met by "Cellular" seeds. Another development has been the opening of the Kollegal Silk Filatures, Ltd., with 150 shares, the Madras Government subscribing for 10 per cent. of the share capital. The protection granted has probably saved the industry from extinction, but it has not been sufficient to improve to any extent the economic condition of the rearer mulberry cultivator, reeler and silk merchant.

73. Research on best varieties of Mulberry.—The Madras Government have been doing their best to improve the industry by carrying on researches in mulberry cultivation at the Government Silk Farms at Coonoor, Hosur and Thadaguni and endeavouring to evolve better varieties by grafting, budding, etc. Japanese hush mulberry plants have been successfully raised by seed in the Thadaguni silk farm and at the Government Textile Institute, Madras. New varieties of mulberry from Bengal known as cocoon mulberry have been purchased and planted successfully at Coonoor and Thadaguni. Successful cultural and manurial experiments have also been undertaken at the Thadaguni farm. It has not been possible, however, to induce the rearer, mulberry cultivator to do anything in this direction so far owing to his inherent conservatism since he is unwilling even to apply an extra cartload of manure. The incentive will only prove sufficiently strong when prices improve.

The best yielding races of silk-worms.—Cross-breeds between Mysore and Chinese and Japanese varieties have been undertaken with very successful results. These cross-breeds are very popular with the ryots. As much as 105 lbs. of cocoons have been harvested from 1 ounce of cross-breed seed. The Department prepared and distributed 186,893 cross-breed seeds during 1937-38.

Rearing of foreign varieties of worms.—At the end of 1933, the Sericultural Expert brought with him from Japan and China (Shanghai) a consignment of seed (univoltine and bivoltine) and got them successfully reared in Kollegal. The cocoons raised were first used for cross-breeding work in Kollegal taluk. Again in 1936, he obtained 24 ounces of Chinese seed from Shanghai. These seeds were used for cross-breeding work. The white races reared in the Government silk farms, have given satisfactory results in cross-breeding. Some Italian seeds have been obtained for producing white cocoons (under hibernation) and some seed from Japan to prepare cross-breed seeds intensively has also been indented for. After a certain time these pure white races deteriorate. It is therefore necessary to get fresh supplies every now and then.

After successfully rearing small quantities of univoltine and bivoltine seeds, 700 ounces of univoltine seed and 300 ounces of bivoltine seed from Marseilles (France) and Kashmir respectively were obtained in August and September, 1937. They have been put under hibernation in the King Institute, Guindy and the Pasteur Institute, Coonoor. A small batch of 10 ounces was released in the month of December, 1937, for rearing in Government silk farms. The hatching was not uniform. The highest yield secured was only 25 lbs. as many worms died of grasserie before spinning. A second batch of 100 ounces of French seed was released during February, 1938. The hatching was a complete success and newly hatched worms were distributed to the rearers. The rearing was a failure on account of the complete absence of rain and the high temperature prevailing during the latter stages of silk-worm rearing which was unusual. Until the monsoon

When "Cellular" seed can be supplied to each and every rearer of Kollegal taluk proposals will be framed for penalising the use of non-tested seeds by legislation.

Researches on diseases.—Please see paragraph 2 of the answer to Question 13.

Researches on the artificial hatching and incubation.—Please see answer to Question 12.

Silkworm gut industry.—Experiments with gut making was started in 1934 with Mysore worms and the guts produced were sent to a London specialist by Mr. A. H. Whittle. The remarks of the former are extracted below:—

"We are returning the gut to you after having had it drawn down to 2 and subsequently graded for quality. We have also made up a cast from some of the best quality, and sent this to you herewith. You will see that the gut is extremely strong, and is much stronger than Spanish gut. If gut of this strength can be turned out in any quantity we are sure there will be a great future for it. If therefore you can produce gut of a length between 14 and 20" there is bound to be a great future for it. So far no gut is being produced within the British Empire and once this can be done, there will be a case for preferential duties which will certainly give the Indian product an advantage in Empire markets." So far as quality goes, the results of the grading are quite satisfactory considering some of the best has been used for tying the enclosed cast. There are 80 millions of strands imported into this country.

The guts have been well spoken of by the Surgeons of the following Hospitals:—

General Hospital, Madras, Military Hospital, The Curzon and Bowring Hospital, Bangalore, The Victoria Hospital and St. Marthas Hospital.

Since it was found by repeated trials and experiments that the Mysore and cross-breed worms did not give a gut of sufficient length for surgical purposes (length of these guts are from 9 inches to 12 inches) guts were extracted from univoltine worms at the beginning of this year and the average length of these guts is 15 inches. The production of guts may develop into an important branch of the Sericulture industry, and if so it will improve considerably the position of the industry by enhancing the rearer's income.

In this connection a paper on "Silkworm gut and the possibilities of developing that industry in India" has been submitted for the Prize Competition conducted by the Industrial Research Council, New Delhi, for Industrial Research Papers, 1937.

Sericultural education.—Please see paragraph 3 of the answers to Question 35.

Marketing.—The marketing of silk is of vital importance to the development of the industry and should be well organised. One possible line of development is to organise a co-operative system of purchase and sale in producing and consuming centres. The marketing organisation set up by the Government of India might perhaps take up this question and attempt to make the Indian silk known in the consuming centres of the Empire.

Conditioning House.—This is a necessity for developing an export trade and improving the silk industry in general. It should be financed by the Government of India. At least two conditioning houses are necessary and since the Madras Province is an important raw silk consuming centre, the city of Madras should be selected as a location for one of the conditioning houses for South India.

Financial assistance.—The view expressed by the last Tariff Board that there should be a central organisation to co-ordinate the work of the Provincial Governments and States interested in Sericulture and that this should be financed by the Government of India is a sound one.

Standardisation of weights and measures.—This question is of all-India importance and should be taken up by the Central Government. The standardisation of weights and measures must be not only for silk but for other commodities as well.

74. Yes, it should be possible to reduce the cost of producing raw silk in Kollegal if adequate protection is given for a further period. The period of protection should not be less than 10 years since measures to reduce the costs of production take a long time to become effective. By cent. per cent. distribution of cross-breed seeds alone, which is possible, the production costs of cocoon can be reduced by about 35 per cent. as cross-breeds give 40 per cent. more yield with less cost per lb. of cocoon.

By starting more steam filatures and by cleaning the silk waste, the cost can be further reduced, but the percentage cannot be accurately stated in the absence of market prices for a number of years for filature silks of different deniers.

In a dry area like Kollegal, the cultural improvement of mulberry is not an easy task. The only method by which the quantity of leaves per acre can be increased is by the application of more farm yard manure and the growing of green manure. Since the number of cattle in the villages is limited the number of cartloads of manure that can be put on the land is also limited. But by growing horse gram green manure some improvement can be brought about. This might result in a slight reduction in the cost of cocoons. The largest reduction that can be brought about is about 40 per cent. Other items such as wages on labour, etc., are already low and cannot be reduced further; they should be enhanced rather than reduced.

3. Attention must be concentrated on the production of "Cellular" cross-breed seed. There should be a special staff for working out the scheme with strict supervision all round. This will also facilitate legislation for cent. per cent. use of tested seed by the rearers, because Government can control seed production easily by undertaking the rearing of white cocoons in their farms and getting Mysore seed cocoons from reputed centres. The subvention scheme now in operation should not be suspended until a more comprehensive scheme is taken up for continuing cross-breed work.

(3) *Statements and supplementary replies handed in at the time of oral evidence on the 19th August, 1938.*

Works cost of reeling by a charka per day, works cost of reeling one lb. of raw silk of different qualities by using cross-breeds, etc.

- (1) 450 cross-breed cocoons weigh 1 lb.
- (2) The price per lb. of cross-breed cocoons is As. 4-8, i.e., 2 pias more than pure Mysore.
- (3) The percentage of double cocoons in cross-breed cocoons is 5.
- (4) The sale price of double cocoons at Kollegal is As. 1-6 a lb.

No.	Particulars.	1st quality.	2nd quality.	3rd quality.
		Rs. A. P.	Rs. A. P.	Rs. A. P.
(1)	Cost of cocoons—			
	22½ lbs. at As. 4-8 per lb. . .	6 9 0	...	...
	23-6 lbs. at As. 4-8 per lb. . .	...	6 14 0	...
	26 lbs. at As. 4-4 per lb. . .	...	...	7 0 8

No.	Particulars.	1st quality.			2nd quality.			3rd quality.		
		Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
(2)	Less cost of double cocoons—									
	1 lb.	0	1	6	...			...
	1.1 lbs. . . . .	...			0	1	8	...		
	1.25 lbs. . . . .	...			...			0	1	11
		6	7	6	6	12	4	6	14	9
(3)	Cost of reeling	1	5	0	1	4	0	1	4	9
		7	12	6	8	0	4	8	3	6
(4)	Less cost of waste at—									
	0.95 lb. at As. 8 a lb.	0	8	0	...			...
	$\frac{1}{4}$ lb. at As. 8 a lb. . . . .	...			0	7	0	...		
	7/10 lb. at As. 8 a lb. . . . .	...			...			0	5	7
		7	4	6	7	9	4	7	13	11
	Hence cost of reeling 1 lb. of silk .	4	13	8	4	0	8	3	7	11.5
	Therefore renditta less 5 per cent. of double cocoons	14.3			12.0			11.0		
	Average cost				Rs. 4.2-1.3					
	Average renditta (reelable cocoons)				12.5					

N.B.—Only reelable cocoons are taken into consideration while fixing the renditta. Cross-breed cocoons contain about 5 per cent. double cocoons generally. The rearer does not sort and sell his cocoons to the reeler. The reeler sorts only the reelable cocoons and sells away the double cocoons. The double cocoons are not reeled by charka reeler at present. They are used for the same purpose as pierced cocoons.

Cost of 1st quality charka silk at the fair selling price of As. 5 per lb. of cocoons.

	Rs. A.
Cost of cocoons = $(14.3 + 14.3 \times 5/100) \times \text{As. } 5 = 15 \times$	
As. 5 or	4 11
Less cost of double cocoons	0 1
Actual cost	4 10
Reeling charges	0 14
	5 8
Less cost of $\frac{1}{4}$ lb. waste at As. 8	0 4
	5 4
Plus reasonable profit for the reeler, merchant and commission for the broker (As. 1-6 + As. 2-6 + 1 anna)	0 5
	5 9
Less ex-duty price of imported Shanghai filature silk	2 2 per lb.
So the duty required will be	3 7 per lb.

Cost of 1st quality charka silk at the fair selling price of As. 4 per lb.

	Rs. A.
Cost of $(14.3+14.3 \times 5/100)$ cocoons at As. 4	3 12
Less cost of double cocoons	0 1
	<hr/>
	3 11
Reeling cost	0 14
	<hr/>
	4 9
Less cost of $\frac{1}{2}$ lb. waste at As. 8 per lb.	0 4
	<hr/>
Total	4 5
Profit	0 5
	<hr/>
	4 10
	<hr/>

Cost of producing 1 lb. of 1st quality charka silk when the cost of production is reduced by about 40 per cent.

1. The present estimated fair selling price per lb. of cross-breed cocoons	Rs. 0 5 0
2. Anticipated reduction in the cost of cocoons	35%
3. So the cost of cocoons after reduction = As. $5 \times 65/100$	Rs. 0 3 3
	<hr/>
4. Cost of 15 lbs. of cocoons at As. 3-3 = Rs. $15 \times$ As. 3-3	Rs. 3 0 9
5. Less cost of 5 per cent double cocoons at As. 1-6 per lb.	Rs. 0 1 0
	<hr/>
	Rs. 2 15 9
6. Reeling cost (present)	Rs. 0 14 0 per lb.
7. Anticipated reduction	5%
8. So the cost of reeling after deducting the anticipated reduction = As. $14 \times 95/100$ = As. 13-36 or Rs. 0 13 4	
9. Total cost of reeling = Rs. 2-15-9 + As. 13-36 or Rs. 3 13 1	
10. Less cost of $\frac{1}{2}$ lb. cleaned waste at As. 8 per lb.	Rs. 0 4 0
	<hr/>
11. Therefore net cost of reeling one lb. of silk	Rs. 3 9 1
	or Rs. 3 9 0
	<hr/>
12. Cost of reeling one lb. of 1st quality charka silk	Rs. 3 9 0
13. Plus a reasonable profit for the reeler, silk merchant and commission to the broker	Rs. 0 5 0
	<hr/>
14. So the fair selling price per lb. of 1st quality silk is	Rs. 3 14 0
	<hr/>

Number of worms produced from an ounce of seed.

One oz. of Mysore seed gives 49 lbs. of cocoons.

Each lb. of cocoon counts 575.

So 49 lbs. of cocoons count 49×575 or 28,175.

Loss in hatching, rearing, etc., 20 per cent.

So the number of worms produced in an ounce of seed is number of cocoons plus 20 per cent. loss out of cocoons.

I.e., $28,175 + 28,175 \times 20/100$.

Or $28,175 + 5,635$ or 33,810.

Or in round figures 34,000.

If 550 cocoons are taken per lb. of Mysore cocoons and 50 lbs. of cocoons per oz. of seed the number of cocoons produced from an oz. of seed cocoons comes to 27,500. In order to bring up to 42,000 worms per oz. of seed the loss would be nearly 53 per cent.

In order to bring up to 42,000 worms per oz. of seed, the loss would be nearly 53 per cent.

49. Distance from Tuticorin to Kumbakonam is 251 miles.

Distance from Kollegal to Kumbakonam is $391 + 38\frac{1}{2} = 439\frac{1}{2}$ miles.

The difference of freight between the two places per railway maund of 82½ lbs. is (As. 3-15 + As. 14) - Rs. 1-11-1 or Rs. 3-1-11.

Therefore the freight per lb. is Rs. $3-1-11/82 = 7-3$ pies.

From Madras to Conjeevaram the charge for a bale of 133½ lbs. is As. 12 by lorry.

From Kollegal to Conjeevaram the distance is $229 + 38\frac{1}{2}$ miles and the charge is (Rs. 2-14 + As. 14) or Rs. 3-12.

The difference is (Rs. 3-12 - As. 12), *i.e.*, Rs. 3 per maund.

This also works to about 7 pies per lb.

Arni Road.

From Kollegal to Arni Road is $216 + 38\frac{1}{2}$ miles and the charge is Rs. 2-12 + As. 14 or Rs. 3-10.

From Tuticorin to Arni Road the charge is Rs. 2-8-3 per maund.

So the difference in freight is (Rs. 3-10 - Rs. 2-8-3) or Rs. 1-1-9 or 2-6 pies per lb.

Bombay to Bangalore—745 miles.

Approximate freight is Rs. 5-0-9 per maund.

Approximate freight per lb. is about 1 anna.

17. The income derived from respective crops raised in Kollegal dry area—

(1) Mulberry—Rs. 12-1 + Rs. 1 for litter and mulberry cuttings, or Rs. 13-1.

(2) Ragi—Rs. 8-3-6.

(3) Jawar—Rs. 7-9-6.

This income is a purely agricultural income from the lands as the rearer mulberry cultivator has charged the actual cost of Rs. 21-12 as food for worms. This agricultural income should not therefore be taken into account in assessing the labour the rearer and his family put for the rearing of worms and picking of leaves for 7 rearings during the year.

68. All other sorts include—

Minchow filature (superior and common).

Canton filature.

Native reeled each as—

Singchowfine.
Minchow.
Qubbin.
Mianiang.
Isatlee.
Kashing.
Kuban.
Shansi Extra.
Lio Lico.

COST AT THE END OF THE PROTECTIVE PERIOD.

Cost of production of 1½ lbs. of raw silk by charka working 9 hours a day.

	1st	2nd	3rd
1. Quality	1st	2nd	3rd
2. Rendita	12	10·4	9·6
Details.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1. Cost of cocoons at 4 annas per lb.	4 8 0	3 14 5	3 9 7
2. Cost of labour	0 10 0	0 10 0	0 8 0
3. Cost of fuel	0 4 0	0 4 0	0 4 0
4. Cost of water (including wage of waterman)	0 2 0	0 2 0	0 2 0
5. Selling expenses (commission to raw silk merchants)	0 2 3	0 2 3	0 2 3
6. Transport of cocoons and brokerage	0 3 0	0 2 9	0 2 6
7. Contingencies (transport charges of silk, cost of oil, thread, skein making, steaming of cocoons, etc.)	0 1 6	0 1 6	0 1 6
8. Supervision and management	0 1 3	0 1 3	0 1 3
9. Total cost of producing 1½ lbs. of silk	6 0 0	5 6 2	4 15 1
10. Cost of 1 lb. of silk	4 0 0	3 9 5	3 4 9
11. Deduct cost of ½ lb. of waste at 5 annas 4 pies per lb.	0 4 0	0 4 0	0 4 0
12. Net cost of producing 1 lb. of silk	3 12 0	3 5 5	3 0 9
13. Interest on working capital	0 2 5	0 2 2	0 2 0
14. Depreciation	0 0 3	0 0 3	0 0 3
15. Profit	0 2 0	0 2 0	0 2 0
16. Total cost of 1 lb. of silk	4 0 8	3 9 10	3 5 0
17. Re-reeling charges (First quality only)	0 3 0	...	...
18. Fair selling price per pound	4 3 8	3 9 10	3 5 0

MOULTING PERIODS AT KOLLEGAL.

Pure Mysore.

	Summer.	Winter.
1st period . . .	5 days. 1 day of moult.	6 days. 1 day.
2nd „ . . .	3 days. 1 day of moult.	4 days. 1 day.
3rd „ . . .	4 days. 1 day of moult.	5 days. 1 day.
4th „ . . .	4 days. 1 day of moult.	5 days. 1 day.
5th „ . . .	7 days.	8 days.
	<hr/> 27 days. <hr/>	<hr/> 32 days. <hr/>

Cross-breed.

1st period . . .	4 days. 1 day of moult.	5 days. 1 day.
2nd „ . . .	3 days. 1 day of moult.	4 days. 1 day.
3rd „ . . .	3 days. 1 day of moult.	4 days. 1 day.
4th „ . . .	4 days. 1 day of moult.	5 days. 1 day.
5th „ . . .	5 days.	6 days.
	<hr/> 23 days. <hr/>	<hr/> 28 days. <hr/>

Out of 12 months in a year 2 months are for the pruning period which should be left out. Out of the remaining period 7 months should be taken as summer months and three months as winter months. This gives an average of 10/7 months per crop. In other words the seven months of summer would give five rearings and the three months of winter the remaining two rearings.

Distribution of leaf among different crops per acre in the year.

	Lbs.
1st crop (after pruning)	1,000
2nd „	600
3rd „	400
4th „	350
5th „	300
6th „	300
7th „	500 (just after a rain in June or July and before pruning).
Total	<hr/> 3,450 <hr/>

Production of cocoons during different crops.

	Lbs.
1st crop of 1,000 lbs. of leaves would give at 14 lbs. per lb. of cocoons	71½
2nd crop of 600 lbs. would give at 15 lbs.	40
3rd to 6th crops at 16 lbs. would give	84½
7th crops at 15 lbs.	33½

Or a total of 229 lbs. per acre.

Details for the consumption of 2,500 lbs. of leaves during the 9 days after the fourth moult.

	Lbs.
1st day	200
2nd „	250
3rd „	300
4th „	400
5th „	400
6th „	350
7th „	300
8th „	200
9th „	100
Total	2,500

The Japanese labourer picks 100 lbs. of leaves a day whilst an Indian labourer can pick 50 lbs. per day for three crops and 30 lbs. per day for the remaining four crops.

No. of days of work turned out by the mulberry cultivator reared.

	Hours.
1st age	18
2nd „	15½
3rd „	35
4th „	70
5th „	252
Total	390½ or 16·2 days.

The leaves from an acre of mulberry is distributed in the following manner:—

	Lbs.
1st age	46
2nd „	112
3rd „	170
4th „	622
5th „	2,500
Total	3,450

From 1st to 4th moult the quantity of leaves used is 950 lbs

After 4th moult the quantity of leaves used is 2,500 lbs.

The number of leaf crops that a mulberry cultivator, rearer gets from an acre of mulberry is 7. This is distributed as follows:—

		Per cent.	Lbs.
1st crop	September and October	21	724.5
2nd "	November	18	621.0
3rd "	December	19	655.5
4th "	January-February	12.5	431.25
5th "	February-March	10	345.0
6th "	April-May	7	241.5
7th "	June-July	12.5	431.25
Total		100	3,450.0

(4) *Economics of Eri silk worm rearing, handed in at Bangalore on the 19th August, 1938.*

Data.

- (1) Production of leaves per acre of castor plantation—6,000 lbs.
- (2) 10 lbs. of leaves yield 1 lb. of green cocoon.
- (3) 8 lbs. of green cocoon=1 lb. of dry pierced cocoons (variable factor).
- (4) Leaf available only for about 4 months in a year.
- (5) 4 rearings can be had in a year.
- (6) Each rearing takes about 20 days.
- (7) 1½ oz.=30,000 seeds.
- (8) 1½ oz. of seed yield 28,500 (5 per cent.).
- (9) 250 green cocoons=1 lb.

Non-recurring expenditure.

	Rs. A. P.
Rearing trays 80 at 4 annas each	20 0 0
Spinning baskets 60 at 2 annas each	7 8 0
Bamboo racks 6 at Rs. 1-4, each	7 8 0
Ant cellars	1 0 0
	<hr/> 36 0 0

Recurring expenditure for conducting 3 rearings a year.

	Rs. A. P.
Cost of 6 ozs. of eggs at As. 12 per oz.	4 8 0
Extra labour required for picking leaves 48 units (girls) at As. 1-6 per unit	4 8 0
Waste paper for spinning	0 12 0
Depreciation on rearing appliances at 20 per cent. per annum	7 3 4
Kerosene oil	0 12 0
Sundries	0 4 8
	<hr/> 18 0 0

Output of green cocoons for 4 rearings=

Dry pierced cocoons=(Rendita 1 : 8) 60 lbs.

Rs. A. P.

Sale price of 60 lbs. of pierced cocoons at
8 annas per lb. 30 0 0

Cost of production as per details given above 18 0 0

Net additional profit on each acre by rearing 12 0 0

(5) Letter No. 1498/38, dated the 23rd August, 1938, from D. M. Amalsad, Esq., Government Textile Institute, Washermanpet, Madras.

With reference to the Tariff Board's question No. 28 relating to Silk Handloom Weaving, I furnish herewith a statement called for by the President showing the wages earned by silk weavers in the manufacture of cloths particulars of which were given in the answer.

2. The wages paid by cloth merchants to handloom weavers for weaving four typical classes of Sarces have already been furnished.

But the actual wage earned by a silk weaver in a day depends upon the time taken by him for weaving, which, in turn, depends upon the nature of the appliance used—whether a hand throw shuttle or a fly shuttle sley, dobbie or draw-boy harness. The wages per day may, however, be taken approximately as follows:—

Wages per day.

As. P.

(1) Plain Silk Sarco	8 0
(2) Saree with Figure in Border	9 0
(3) Sarco with Solid Border and Figure in Gold Thread	9 0 plus 1 6 for a boy.
(4) Silk Brocade Saree	10 0 plus 2 0 for an Assistant.

(6) Letter No. 2011-D./38, dated the 21st September, 1938, from the Director of Industries, Madras.

When I gave oral evidence before the Tariff Board at Bangalore in August, I was asked to send supplementary notes in regard to the following:—

- (i) Weight of green cocoons from the time they are removed from the spinning trays.
- (ii) Capital outlay required to install re-reeling machines of the Japanese model, in a filature, of 150 basins. [Not available.]
- (iii) Classification of silks for Tariff purposes.
- (iv) Ericulture.

I now enclose, for the information of the Board, notes on these subjects.

NOTE ON THE WEIGHT OF GREEN COCOONS FROM THE TIME THEY ARE REMOVED FROM THE SPINNING TRAYS.

Actual weight taken on each day.

Date of commencement of spinning—23th August, 1938.

Date of completion of spinning—29th August, 1938.

Weight of cocoons on 30th August 1938, at 4 P.M.—23 lbs. 3½ ozs.

Weight of cocoons on 31st August, 1938, at 4 P.M.—22 lbs. 8 ozs.

Weight of cocoons on 1st September, 1938, at 4 P.M.—22 lbs. 3 ozs.
 Weight of cocoons on 2nd September, 1938, at 4 P.M.—21 lbs. 13 ozs.
 Weight of cocoons on 3rd September, 1938, at 10-30 A.M.—21 lbs. 7½ ozs.
 Weight of cocoons on 3rd September, 1938, at 4 P.M.—21 lbs. 5 ozs.
 Weight of cocoons on 4th September, 1938, at 4 P.M.—20 lbs. 14 ozs.
 Weight of cocoons on 5th September, 1938, at 9 A.M.—20 lbs. 8 ozs.
 All the cocoons were steamed on 5th September, 1938, at 10 A.M.

The cocoons are generally weighed on the third day after the date of completion of spinning. In this case the cocoons were weighed on 31st August, 1938, for reeling and the weight was 22 lbs. 8 ounces. On the fifth day, i.e., on 2nd September, 1938, it was 21 lbs. 13 ounces. The loss is therefore 22-8 minus 21-13 or 11 ounces on 22½ lbs. But the loss given out by Mr. Silva is 17-5 minus 15-7 or 1 lb. 14 ounces. The actual weights taken in an accurate balance do not tally with Mr. Silva's figures.

It will not be possible to compel the rearers to give up the practice of selling their cocoons on the third day unless the filature and country reelers offer the rearers proportionately higher rates for the fifth day cocoons as compared with third day cocoons.

Classification of Silks for Tariff purposes.

The classification can be as follows for raw silks booked both from Japanese ports and from Shanghai:—

1. Filature white re-reeled—13/15 denier.
2. Filature yellow re-reeled—13/15 denier. ff
3. Filature white re-reeled—20/22 denier and coarser.
4. Filature yellow re-reeled—20/22 denier and coarser.
5. Filature white reeled—13/15 denier.
6. Filature yellow reeled—13/15 denier.
7. Filature white reeled—20/22 denier.
8. Filature yellow reeled—20/22 denier and coarser.

For silks booked from Canton and Hongkong ports—

9. Canton filature—13/15 denier.
10. Canton filature—20/22 denier and coarser.
11. Filature reeled duppion white . . . } This will also apply to Japan
12. Filature reeled duppion yellow . . . } and Shanghai silks.
13. Duppion hand reeled white . . . } This will apply to all
14. Duppion hand reeled yellow . . . } Duppions of Japan and
15. Hand reeled silks—white—I quality and II quality.
16. Hand reeled silks—yellow—I quality and II quality.
17. Waste products—I quality.
18. Waste products—II quality.

Items 15 to 18 are not generally exported from Japan.

NOTE.—If a lower Tariff value is fixed for silks coming from Shanghai, there is the possibility of Japan consigning her raw silks from Shanghai instead of from Kobe or Yokohama after booking them first to Shanghai.

NOTE ON ERICULTURE.

In order to give a fair trial to the experiments on Ericulture that were started in October, 1930, the services of a practical criworm rearer and his wife, who was a spinner, were secured through the assistance of Miss Cleghorn of the Department of Sericulture, Bengal. These people brought with them an ounce of eri eggs and a Bergal eri spinning charka.

Kangundi Kuppam, in the Chittoor District, where climatic conditions were favourable and where there was an abundant supply of castor leaves, was selected as the venue for carrying on the experiments under the personal supervision of an influential person who was connected with a local weaving establishment. Several rearings were conducted at Kuppam and Sivarampuram, a village 18 miles from Kuppam over a period of six months.

2. The ericulturists reported that the cocoons were superior to the cocoons obtained in Bengal. A report was received from Messrs. Sankerdev Silk Weaving Factory of Soalkuchi, Kamrup (Assam) to the effect that "Your cocoons were good and as white as milk, am offering Rs. 55 to Rs. 60 per Bengal maund".

3. The Bengal eri spinner taught a number of people (men and women) in the Kuppam area practical spinning. One of them who was so trained was deputed to several eri cocoon centres where eri worms rearing had been successfully undertaken by a number of agriculturists through the propaganda done by the departmental Demonstrators. Though the work of rearing went on successfully, the work of spinning did not keep pace with it as the agriculturist rearers did not take to spinning with the same enthusiasm as they took to rearing. The result was that there stocks of cocoons accumulated with the agriculturists who were anxious to dispose them. The yarn spun was collected and sent to the Director of Primary Education and Industries, Mayurbhanj State, Baripada (Bihar and Orissa), who made two purchases of the yarn. But no further orders were received from him.

4. Ten lbs. of eri yarn were obtained from the Government Silk Institute, Bhagalpur, and woven into cloth in the Government Textile Institute, Madras, and a handloom weaver at Kuppam. The cloth was taken round the Madras market, but no merchant showed any interest in it and so, the idea of weaving the yarn into cloth was given up. Several enquiries were made thereafter in regard to possible ways of disposing of the cocoons and spun yarn, in India, Europe and America. Mr. Patnaik, the Director of Primary Education and Cottage Industries, Mayurbhanj State, purchased some of the yarn at Rs. 12 per seer of 105 tolas for fine yarn and Rs. 8 per seer of coarse yarn. Subsequently he stated that the price had fallen to Rs. 10 and 7 respectively and later on that the price has gone down to Rs. 8 and 5 respectively for a seer of 80 tolas. Finally orders from Mayurbhanj stopped and people who had taken to spinning in some centres did not evince any further interest in the matter. Mr. Good-Liffe of Warnham, Horsaam (England), who was interested in handspun eri yarn for making neck-ties, offered Rs. 7 to Rs. 9 per lb. of yarn, but business did not materialise as he then wrote and said that he had decided to drop this branch of his business.

5. Various endeavours were made to find an outlet for cocoons at remunerative prices. Samples of eri cocoons were sent to the Imperial Institute, London, American Silk Association, Trade Commissioner, Hamburg, British Commercial Counsellor, Rome, etc. Except the Imperial Institute, London, who advised that 150 lbs. of cocoons should be sent to Messrs. Lister and Co., Manningham Mills, Bradford for spinning, none of the others who were addressed in the matter gave any encouraging reply. Messrs. Lister and Co., Ltd., spun the silk and sent 40 lbs. 14 ounces of spun yarn and 13 lbs. 15 ounces of noil yarn. A small quantity of this yarn was dyed in Madras and it took the dye very well. As against this proportion of cocoons to yarn, Messrs. Greenwood and Batley have given figures of 3 lbs. 2 ounces of spun yarn and 4 lbs. 4 ounces of noils resulting from the treatment of 18 lbs. of eri cocoons. Messrs. Lister and Co., Ltd., also stated that the price at which eri silk cocoons could be probably marketed in England is about 9d. per lb. Considering charges such as freight import duty, etc., it was not found economically possible to export eri cocoons to England.

6. Merchants in Assam interested in eri cocoons were addressed in the matter and though a lot of correspondence ensued, no definite market was

found for the cocoons in that Province. It will thus be seen that every effort was made to find an outlet for eri cocoons, handspun eri yarn and eri silk cloth, but without success. The mill spun yarn (both spun yarn and noil yarn) was converted into suiting cloth in the power looms and a ready market was found for it at prices ranging from Rs. 3-8 to Rs. 1-12 for a yard of 45" breadth.

7. Economics of Eri Silkworm rearing:—

Data.

Quantity of leaves than can be gathered if the leaves are removed from the beginning—6,150 lbs. or about 75 maunds of 82½ lbs.

Quantity of leaves available if they are picked after the seeds are formed and fairly matured—4,500 lbs.

Leaf available for three months only in a year.

At best three rearings can be had in a year.

Quantity of leaves available for one rearing—1,500 lbs.

Each rearing takes about 20 days.

Ten lbs. of leaves are required to produce 1 lb. of green cocoons.

Quantity of cocoons produced—150 lbs.

Seven lbs. of green cocoons: 1 lb. of dry pierced cocoons (variable factor).

Quantity of pierced cocoons at 7 : 1—21½ renditta.

No. of dry pierced cocoons in 1 lb.—1,500.

Approximate number of eggs in an ounce—17,000.

Quantity allowed for non-hatching, etc.—1,000.

No. of worms that can be had from 1 ounce of eggs—16,000.

Quantity of eggs required for one rearing—Two ounces.

21½ lbs. of pierced cocoons are produced in one rearing.

Quantity of pierced cocoons that can be had from one ounce of eggs—10½ lbs.

Non-recurring Expenditure.

	Rs. A. P.
Rearing trays 80 at 4 annas each	20 0 0
Spinning baskets 60 at 2 annas each	7 8 0
Bamboo racks 6 at Rs. 1-4 each	7 8 0
Ant cellars	1 0 0
	<hr/>
	36 0 0

Recurring Expenditure for conducting three rearings a year.

	Rs. A. P.
Cost of 6 ozs. of eggs at 12 annas per oz. at 2 ozs. of eggs per rearing	4 8 0
Extra labour required for picking leaves 48 units (girls) at 1 anna 6 pies per unit	4 8 0
Waste paper for spinning	1 0 0
Depreciation on rearing appliances at 20 per cent. per annum	7 3 4
Kerosene oil	1 0 0
Sundries	0 12 8
	<hr/>
	19 0 0

	Rs. A. P.
Output of green cocoons for three rearings from 4,500 lbs. of leaves is 450 lbs. . . . .	...
Dry pierced cocoons (Renditta 1 : 7) 64 lbs. . . . .	...
Sale price of 64 lbs. of pierced cocoons at 8 annas per lb.	32 0 0
Cost of production as per details given above	19 0 0
Net additional profit on each acre by rearing	13 0 0

8. The acreage under castor in the Province of Madras has been fluctuating between 250,000 and 300,000. If all the wasted leaves are utilised for rearing eri worms 275,000 x 64 lbs. could be produced, or 17,600,000 lbs. of cocoons which would give the agriculturists a net additional income of Rs. 35,75,000. It will thus be seen there is scope for setting up three or four silk waste spinning mills for converting this raw material into spun silk. The rearing of eri worms will give part-time occupation to many of the agriculturists who are in need of such employment. They will also derive some income for the growing of castor over and above that obtained from castor seed.

(7) *Letter No. 1024-D./38, dated the 8th October, 1938, from the Director of Industries, Madras.*

When I gave oral evidence before the Tariff Board at Bangalore in August, 1938, I was asked to send a supplementary note* in regard to the economics of Eri Silkworm rearing. I now enclose for the information of the Board a statement embodying the required particulars.

(8) *Letter No. 1074-D./38, dated the 20th October, 1938, from the Director of Industries, Madras.*

As requested by the President during the course of my oral evidence before the Tariff Board at Bangalore in August, I forward copies of (i) Report of the Sericultural Expert on his visit to Japan, and (ii) Note on the possibilities of developing a silkworm gut industry in India.

2. In support of my statement before the Board that sericulture forms the main occupation in many villages of the Kollegal taluk, I forward for the perusal of the Board a copy of the publication entitled "An account of the activities of the Department of Industries, Madras" on page 55 of which will be found a definite statement to this effect. It is requested that the book may be returned after perusal.

3. I may mention for the information of the Board that I have received a report from the Sericultural Expert, Kollegal, to the effect that the present price of cocoons is only Rs. 5 per maund as against from Rs. 7 to Rs. 7-4 per maund at the time when the representatives of the Madras Department of Industries were examined at Bangalore in August. The low price which cocoons are realising is having an adverse effect on the position of the industry.

4. On page 133 of the record of evidence tendered by the Madras representatives before the Board, which has been sent to me for any necessary correction, and which will be returned as early as possible, there is an error in the calculation of the wages for rearing. It is stated by the President that the wages for rearing would come to roughly one anna per lb. Actually, however, it comes to one anna four pies, or roughly one and a

* Already printed as an enclosure to letter, dated the 21st September, 1938.

† Not printed.

half anna. On the basis of one anna per lb. the wages for picking leaves and for rearing worms were fixed by the President at As. 4-3 per lb. or allowing a margin of 3 pies (page 135 of the record of oral evidence) As. 4-6 per lb. The addition of six pies per lb. would bring the price of cocoons up to As. 5 per lb. which was the figure recommended by this department to the Board in the written memorandum which was submitted to it.

Silkworm Gut and the possibilities of developing that Industry in India.

Silkworm gut as is technically known is nothing but the stretched and hardened silk gland in the body of the silkworm. So, it is a misnomer to call this as the gut, because the alimentary canal of the silkworm is also termed the "Gut". This hardened silk gland (hereinafter called the "Gut") is very largely used in hospitals for surgical purposes as ligatures and also for fish tackles.

2. *Origin of the Gut Industry.*—This industry is being carried on from a very long time in Spain and it was first introduced by a Spaniard. He was using vinegar containing acetic acid for soaking and drawing the glands from the body of the silkworm. The composition and strength of the solution he used is still unknown but the basic idea of extracting guts from the silkworms soaked in vinegar or acetic acid led to further researches on this subject. The present standard suture gut which is so largely used for surgical purposes all over the World is the result of researches carried on for a number of years.

(ii) In India no small credit is due to the Sericultural Section of the Department of Industries, Madras, for being the pioneers in recognising the importance of this industry and having carried out researches. The first attempt to produce the suture guts was made in the year 1934. From that time onwards a number of experiments are being carried on, on the production of these guts, from the indigenous Mysore variety as well as from the foreign varieties of silkworms. The results obtained in this line of work are very encouraging.

3. The whole process of producing the gut is clearly described in the succeeding paragraphs before proceeding to the economic aspects of the industry.

(i) *Preliminary Processes Involved.*

(ii) *Extraction.*

(iii) *Bleaching and Processing.*

(iv) *Finishing.*

(i) *Preliminary Processes Involved.*—First of all, fully matured, robust and healthy larvae are selected. Plate 1, shows the fully matured worms with their shortened bodies. To arrive at the exact percentage of acid required and the period of immersion for soaking the worms, several experiments were conducted in acetic acid whose strength varied from 1 to 10 per cent. and the duration of immersion ranging from 1 to 10 hours. Finally it was found out that worms soaked in a solution of 7 per cent. strength for a period of four hours gave the best of results with the suitable length and uniform thickness. It was also found out that guts could be produced from a solution of 5 to 6 per cent. and soaked for a period of more than four hours but they were not of the standard quality.

Plate 2 shows the mature worms put in a beaker of acetic acid. After an interval of 4 hours the worms are transferred to a solution of sodium carbonate of 5 to 6 per cent. strength to remove the traces of acetic acid in the worm, because it was found out that worms taken directly from the acid solution produced an itching effect on the skin. Then, the worms are transferred to a solution of tannic acid dissolved in water—of about

5 per cent. strength—with a little formaldehyde and kept for a period of 15 minutes. This mixture has been found out to be very successful in hardening the matured silk gland after it is treated by acetic acid. An equally effect process is to put the mature worms in a solution of 5 per cent. tannic acid and formaldehyde mixed with a solution of 5 to 6 per cent. sodium carbonate. It has been found that if the worms are allowed to soak in the acid solution for more than six hours, the gland becomes very soft and begins to break when stretched. So, the optimum duration of immersion is four hours.

(ii) *Extraction*.—As soon as the worm is taken out from the solution, the mouth part is just removed with the help of a pair of scissors and the body of the worm is then gently pressed (Plate III and IV show the act of removing the anterior part of the body of the worm with the help of a pair of scissors and the subsequent gentle squeezing of the worm). Then the two glands inside the body of the worm come out one after the other and are very slinky to touch. They are taken out and put on a piece of paper. Plate V shows the position of the gland in the body of the worm. The letters marked "g", "g" are the two silk glands which are situated one on either side of the central alimentary canal. Each gland is doubly bent and the ends taper to a point. The ends are rigidly held by the thumb and the fore-finger of each hand and given a quick and uniform pull, till the gland is stretched to its maximum length. Plate VI shows the position of the hand and the drawn out gut. Two coils ("c", "c" as indicated in the plate) are formed one on either side in the place in which there were the two bends before, in the developed silk gland. The central part without the two coils is the gut proper. The uniformity of the gut mainly depends upon the quickness with which the gland is stretched with the required pulling force. The gut generally breaks at the position of the two coils.

Each gland is stretched likewise and put on a clean sheet of paper one over the other. The unfinished gut consists of a central core of filament surrounded by a membranous material which can very easily be removed. Plate VII shows the heap of stretched glands or the unfinished gut tied by means of a piece of string. Then papers containing such heaps of unfinished guts are put in the bright sunlight for about 24 hours or more to allow them to dry and harden; so that the strands may become wire-like and rigid.

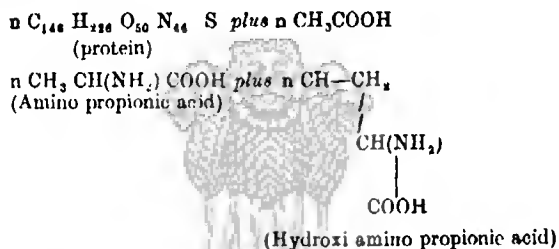
(iii) *Bleaching*.—Before the process of bleaching a sort rough selection and grading is done according to the length of each gut. Guts measuring 12" in length and upwards (excluding the portion of the two coils) are selected for surgical purposes. Those which measure less than 12" are generally used for fish tackles. The selected guts are made into a bundle by tying a thread at one end. After bundling they are dipped in a 5 per cent. solution of Sodium Carbonate and allowed to soak for 12 hours or more in order to remove impurities. They are then taken out and each bundle of strand is thoroughly washed in running cold water having no permanent lurness. Afterwards they are put in a 5 per cent. solution of potassium carbonate or soft soap and the solution boiled very vigorously for about 3 to 4 hours continuously care being taken to renew the solution twice or thrice during the operation. The process of boiling and bleaching is done (1) to remove the soft membranous material surrounding the central fibre, (2) to remove the dirt and other impurities and (3) to impart a shining silvery lustre to the gut. When the strands attain the silvery lustre (this could be found out by just removing out a bundle from the boiling solution by means of a pair of tongs) they are removed from the boiling solution, again washed thoroughly in running cold water and allowed to dry for 12 hours or more in bright sunlight. Overboiling impairs the quality of the gut because it has been noticed that guts which are boiled even after they attain the silvery lustre loose their tenacity.

(iv) *Finishing*.—The guts are then removed from the sunlight, each gut is taken out and the portion of the gut proper is well polished with a soft piece of polishing cloth which gives an additional finish to the guts. It

forms a circular roll as the process is continued. Then the two ends are cut so as to remove the coils at the ends. They are graded according to their length and thickness. Generally, the guts obtained here, could be graded as medium and fine guts. The guts that are generally imported from abroad measure 12" in length and they are graded as coarse, medium and fine, the superior being the coarse and the inferior being the finer ones. The coarser or the superior gut is obtainable only from the best univoltine races of worms. In the case of guts produced out of pure Mysore variety of worms, they will have to be passed through an additional bleaching process after they are boiled with a weak solution of sulphurous acid to get well bleached guts. They are then removed from the acid solution and washed several times in cold water to remove traces of acid.

4. After the process of finishing, the guts are sterilized in special auto-claves and packed in paper covers and boxes. Plate VIII shows a circular roll of finished guts of medium size ready for packing.

5. *Chemistry of the Reaction*.—The principal reaction involved in the whole process of gut making is between the proteinous matter of the silk gland and the dilute solution of the acetic acid. The change involved is evidently hydrolysis, and the whole reaction may be represented in general terms as follows:—



Though other amino acids are formed the principal products may be D Alanine and D Compound of Serine, and only after the reaction of the acid on the proteinous matter of the gland, the latter reaches the required consistency of elasticity for stretching.

6. The whole process described is laborious and requires care and dexterity of a person to produce superior guts which are marketed at a very high rate.

7. Several experiments have proved that the univoltine varieties of worms yield longer and thicker guts than the multivoltine or the hybrid races. The guts that are now produced are in no way inferior to those that are imported annually from Europe. Table 1 shows the percentage of guts of different lengths obtained out of univoltine, hybrid and multivoltine races.

8. *Economic aspects of the Industry.*—(a) The importance of this industry will be well understood if the need for silkworm guts, and the difference in price between the imported and the indigenous guts are considered side by side. For example, the approximate annual consumption of guts by the various Government Hospitals and private clinics is indeed large.

(b) *Cost of Production.*—The cost of 100 guts that are imported from Europe for surgical purposes is reported to range from Rs. 3 to Rs. 6. The approximate cost of production in India on the laboratory scale comes to about rupees two only and the cost will be still less if they are produced in large quantities on a commercial scale. Table 2 shows the average cost of production of 100 silkworm guts taking into consideration the cost of worms, chemicals, labour, etc. 100 worms yield 200 glands (at 2 per worm) but allowing a wide margin for wastage, etc., 100 good guts could easily be extracted out of the 100 worms. The cost of 100 worms includes the cost of seed and rearing charges.

(c) Hence it is needless to stress on the huge saving that would amount to, if an indigenous gut industry is established and further this industry may also help immensely the British Empire in the event of a war with any other nation when the demand for suture guts would be very great.

9. A large portion of India lies within the "Silk Belt" encircling the Globe and the Sericultural Industry exists from time immemorial. "It occupies an important place in the agricultural economy of the country, providing a subsidiary occupation and additional resources for a portion of a teeming population which draws its sustenance from the land and affording opportunities for useful, profitable and congenial employment for some of the educated classes" (Paragraph 116 of the Indian Tariff Board Report). The Provinces where the industry occupies an important position among the minor industries are, the Punjab, Kashmir, Bengal, Bihar and Orissa, Mysore and Madras. So, mulberry silkworm could be reared in any of the suitable places of these Provinces and the gut industry could be well started on a commercial line. Worms that feed on castor leaves, i.e., oriworms are quite unsuitable for the extraction of guts because it is not possible to get a continuous filament owing to the contorted nature of their glands. So, this gut industry is entirely dependent upon the mulberry silkworm industry.

10. *Life History of the Silkworm.*—It is not out of place to state briefly the metamorphosis of the silkworm in discussing about the gut industry which is mainly dependent upon Sericulture. The life history of the worm consists of four stages (i) the egg, (ii) the larva, (iii) the Pupa and (iv) the Imago. The egg hatches into a larva and the larva life lasts for about 30 days consisting of 5 stages. During this period, the worm as it grows bigger sheds its skin four times and this phenomenon is called moulting. The silk glands begin to develop well only after the 4th moult. Just before the worm begins to spin it becomes shining in appearance with the fully matured glands inside its body. Only at this stage the worms are selected for gut purposes and not before. The larva then passes to the pupa stages which lasts for about 10 days and then changes into a full fledged butterfly.

11. The Sericultural Industry has got very great natural resources in India. The economic environment, i.e., low wages, the state of unemployment in the rural parts of the country, etc., is conducive for the rearing of silkworms. Moreover, mulberry can be grown in any land and is purely a rain fed crop in the Mysore Plateau. It is propagated by either seed, grafting, layers or cuttings. The climatic conditions of those parts of India where there is Sericulture are suitable for the cultivation of mulberry and rearing of silkworms. Silkworms, thrive well in plateau, possessing an agreeable temperate climate, the temperature never falling below 75° F. and rising above 100° F. with an average distributed rainfall of 30 to 50 inches. It has been found out by experiments that univoltine worms give guts measuring from 12 to 16 inches in length. These guts are reported to have a greater sale as they are in greater demand. These univoltine worms are reared in Kashmir and the Punjab successfully. There is therefore, a wide field for starting the gut industry in those centres. As for the Mysore plateau including Kollegal only guts of smaller length can be produced and the demand and prices offered for these are not attractive. The gut industry can only be thought of in the Mysore plateau including Kollegal when univoltine worms can be reared successfully.

12. The two important factors that should be taken into consideration in discussing the possibilities of developing the gut industry in India are:—

- (i) Selection of sound silkworm seeds.
- (ii) Rearing technique.

Both are equally important and to attain one without attempting the other would give much less than half the battle. The two should go hand in hand.

(i) Silkworms are prone to infectious diseases. As Mr. Jameson says:—
 “Disease could be conquered only by honest and careful seed selection coupled with the adoption of modern means of disinfecting and rearing.”
 Only robust and healthy worms without any disease in the lot are used for the extraction of guts and necessarily the original seed should be perfectly free from any diseases. The production of good quality cocoons depends upon the healthy development of the silk gland and so also for the production of longer and thicker guts. It has been found out that in a worm which has been affected with pebrine or flacherie the silk glands are not so well developed as to give a long and uniform gut. Considering the above conditions it is obvious that the importance of providing the Indian rearer with perfectly disease-free seed can hardly be exaggerated.

(ii) Coming to the next important factor, viz., rearing, it is really an art to rear silkworms and produce good quality spinning worms. While disease-free layings would do much it will never completely compensate for the bad rearing and if the seed is not of the best, careless rearing will make the yield of spinning worms infinitely worse than it might have been. All the diseases of silkworms could be acquired during their larval life. As the Sericultural crop is greatly affected by the quality of mulberry leaves, care should be exercised in making an adequate supply of mulberry leaves of the best variety for adopting rational and cleaner methods of rearing such as providing better ventilation, spacing, cleanliness, systematic feeding of worms, etc., for the healthy development of the worms. It has been found that worms which are given more spacing after the IV moult become a little longer and consequently the silk gland whose length is mainly responsible for the production of longer guts are also lengthened. So, a great deal of technical skill is necessary for the successful conduct of rearing and diseases can be controlled only by demonstration and propaganda of the efficacy of rational methods of rearing and the use of good quality seeds. Only such rearers who are experienced in rearing on rational methods in the Sericultural villages should be selected for the rearing of worms. Healthy seeds preferably from univoltine races should be distributed to such rearers. The matured worms are bought for gut purposes provided the worms are free from diseases. The rearer is paid for his ripe worms on the same rate or a little above, the rate at which he sells his cocoons for reeling purposes. He will be readily willing to part with his ripe worms instead of his cocoons because (i) he saves the labour and mounting charges for the ripe worms on the cocoons, (ii) he will not run the risk of keeping the cocoons in his house until they are marketed at a fair price and (iii) the chances of some of the cocoons getting spoiled by rats, lizards are lessened. It is evident that from a single worm which would produce one good reeling cocoon costing about a pie or more, two guts fetching a few annas could be produced. Roughly, one skilled labourer who is ordinarily paid 8 annas a day of eight working hours can at the minimum extract about 500 guts a day and in a factory or Government establishment thousands of guts could be extracted in a day without any difficulty.

13. Thus, it provides employment for a large number of people both for rearing of worms and extraction of guts. The process of bleaching, and finishing requires the services of scientifically trained men and thus it absorbs some of the educated classes and tackles the unemployment problem which is evincing the keen interest of all the Provincial Governments. Hence there is vast scope for this industry in India started either by the Government or by private enterprise.

14. The silkworm guts that are now produced have been pronounced to be suitable for surgical purposes by some of the Surgeons working in the General Hospital, Madras. Extract from the letters of one of the eminent surgeons about the quality of the gut is quoted below:—

“The sample of silkworm gut is approved as suitable for hospital use.” (By Lt.-Col. K. G. Pandalai, I.M.S., Superintendent, General Hospital, Madras).

It is hoped that in no distant future this gut industry may become an important suitable side occupation which will make the British Empire self-supporting in the matter of suture guts and fish tackles.

TABLE No. 1.

No.	Variety or Race.	Percentage of guts.	Length.
1. Mysore		10	14 inches.
		30	9 „ and below.
		60	12 „
2. French univoltine and bivoltines		10	12 „ and below.
		40	16 „ „ „
		50	13 „ to 15 inches.
3. Kashmir univoltine and bivoltines		10	12 „ and below.
		40	16 „ „ „
		50	13 „ to 15 inches.
4. Mysore x French or Kashmir		20	16 „ and above.
		30	12 „ and below.
		50	14 „
5. Japanese univoltine		10	16 „
		40	12 „ and below.
		50	14 „
6. Mysore x Japanese		10	16 „
		40	12 „ and below.
		50	14 „

TABLE No. 2.

Maximum cost of production of 100 guts measuring 12 to 14 inches.

	Rs. a.
1. Cost of 100 ripe worms	0 8
2. Wages	0 4
3. Chemicals, etc.	0 12
4. Sterilizing and packing	0 8
Total	2 0

(9) Letter No. 1024-D/38, dated the 2nd November, 1938, from the Director of Industries, Madras.

I return duly corrected a copy of the record of evidence* tendered by me and Messrs. Amalsad and Achaya before the Tariff Board on the 18th and 19th of August, 1938.

2. In the course of my oral evidence, I was asked by the President for information as to the cost of production of a pound of thrown silk and I

said that I would endeavour to collect some figures and send them to the Board. But I regret that I have been unable to obtain any useful data. Thrown silk consists of both "Organzine" (for warp) and "Tram" (for weft). In the case of the former, the single thread is first given about 18 twists to the inch, then doubled. Thereafter the doubled thread is twisted into one combined thread, which is known as "Organzine", which is the kind of thrown silk imported from Japan. "Tram" is made up of three or more single threads folded together and then given a light twist (four or five turns to the inch). This is also known as thrown silk yarn, but no such yarn is imported into India. I understand that there is another kind of organzine prepared in India which is known as "goddu-huri". In this case, the single thread is not twisted before being doubled but is simply folded together, (as in the case of tram), and then twisted like the ordinary organzine. This variety also is not imported. I am informed that in a throwing mill, all the three varieties mentioned above are prepared simultaneously in varying quantities and that it is not, therefore, possible to state the cost of throwing a pound of raw silk, especially if the figure is to be supported by the actual expenditure incurred in a factory over a period of years. I am informed that the division of cost between the three varieties is largely a matter of averages which each factory determines for itself according to its output of each variety. Mr. F. L. Silva informs me that the cost of throwing a pound of raw silk into organzine in Bangalore may be estimated at Rs. 1-8 per lb. for 20/24, the standard denier, but I am not in a position to check or vouch for this figure.

3. The question of granting the silk handloom weavers a subsidy similar to that provided by the Government of India for the cotton handloom weavers was also discussed, and I agreed to supply the Board with a note on the subject. I accordingly addressed the several Directors of Industries requesting them to let me know the consumption of natural silk in their Provinces. The Director of Industries, Assam, and the Superintendent of Industries, Delhi state that it is not possible to supply statistics of the consumption of natural silk. I consider that the question of what would constitute a reasonable and equitable basis for the allocation of the suggested subvention might suitably be discussed at the Conference of Directors of Industries in charge of sericulture at Calcutta on the 16th and 17th of November 1938. The most equitable basis would seem to be the consumption of natural silk unless the difficulty of obtaining sufficiently reliable figures proved to be insurmountable.

(10) *Letter No. 2552-D/38, dated the 6th December, 1938, from the Director of Industries, Madras.*

I forward a note by the Sericultural Expert embodying the information which you asked him to send on to you when he was at Calcutta last month.

NOTE.

1. *Information of Bonded Silk and State Subsidy.*—My report on the Japanese silk industry contains the following information on page 79:—

"It can be stated that the Government indirectly controls the whole industry and in times of depression subsidizes the industry. In 1930, when the price of silk went down, Government passed the Silk Compensation Law guaranteeing banks financing the raw silk industry against loss up to 30 million yens over a period of 5 years. This was done on account of the vital importance of raw silk trade to Japan. Prices fluctuated badly during 1932 touching yen 390 per picul in May, yen 1100 in August and settling at about 900 towards the end of the year. The importance of the industry obliged the Government to undertake large expenditure in the purchase of stocks and other measures and

loss amounting to 95 million yen has been incurred of which 45½ million yen is to be borne by Government, 38½ million yen by the silk reelers and the remainder by the banks. The withdrawn stocks amount to 98,000 bales and they are still lying in the go-downs and it is feared that any attempt to release them for sale in the open market will bring down prices".

2. It is fairly clear that the price paid by the Japanese Government is in the neighbourhood of 1,250 yens and what they have been realising is about 455 yens.

II. *Invoices—Latest.*—Three invoices* (copies of originals) are enclosed for silks received from Shanghai in the months of September and October 1938. The South Indian market opinion is that Japanese silks are not coming at all now but number of varieties of Shanghai silks are coming in large quantities. It is reported that 2,000 bales of Shanghai silk have recently been purchased by Messrs. Nagindas Foolchand Chinoy of Bombay.

2. On an average the freight charges are 35 dollars for 133 lbs. of silk or one picul to Bombay port, i.e., about two annas from Shanghai. It will be a little more from Kobe or Yokohama. The freight charges to Madras are almost double that of Bombay as the steamers do not call at Madras direct but reshipment is effected at Singapore. This is clear from Invoice No. 2.

- (11) *Demi-official letter No. 1346, dated the 7th December, 1938, from F. I. Rahimtoola, Esq., President, Tariff Board, to L. B. Green, Esq., Director of Industries, Madras.*

May I refer you to your letter No. 1024-D/38, dated the 2nd November, 1938, which accompanied the corrected oral evidence? You very kindly promised to give me a statement with regard to the working of the subsidy to be granted to the silk handloom weavers. I did raise this point in the Directors of Industries' Conference, but no useful suggestion was made. Could you let me know whether you want the Board to consider this matter and if so, on what lines?

- (12) *D. O. No. 1024-D/38, dated the 26th December, 1938, from L. B. Green, Esq., Director of Industries, Madras, to F. I. Rahimtoola, Esq., President, Tariff Board.*

Will you please refer to you D. O. No. 1346 of the 7th December, 1938.

I consider that, as stated during the course of my oral examination at Bangalore, it would be desirable, in order to promote the production and consumption of indigenous silk, for the Government of India to afford a subsidy to the silk handloom weaving industry employing country silk on the analogy of the subvention granted to the cotton handloom weaving industry. Such a subsidy could be utilised to the best advantage for organising and developing silk handloom weavers' co-operative societies. I thought originally that the subvention could most suitably be based on the consumption of raw silk in the several Provinces and States, but as it seems impossible to estimate with any degree of precision the consumption of raw silk, the subsidy might, I suggest, be based on the number of silk looms in each province.

2. The manufacture of silk cloth constitutes an important branch of the handloom weaving industry of the Province of Madras and although the production of raw silk is centred in the Kollegal taluk, the silk weaving industry in the Province, which consumes indigenous as well as imported silk, is carried on in several places. The consumption of raw silk in the Madras Province (indigenous as well as imported silk) may be estimated

approximately at 10 lakhs or one million lbs. per annum. The centres of silk weaving and the approximate number of looms in each locality are shown in the following statement:—

Places.	Silk looms.
Onjeovaram	2,194
Kumbakonam	1,766
Tanjore	1,040
Dharinavaram	1,500
Salem	1,045
Gndiyatham	881
Peddapuram	800
Arni	525
Kollegal	320
Trichinopoly and suburbs	213
Kuttalam	162
Mayavaram	100
Rayadrug	58

3. Considering the distribution of the silk weaving industry as given in the preceding paragraph, it may be sufficient if a subsidy is provided for the formation of about 12 co-operative societies, say for a period of five years. The subsidy for a society may be fixed at Rs. 60 per mensem calculated as below, on the basis of the overhead charge for running a society:—

	Rs.
Rent	10
Manager and Accountant	20
Peon	6
Night Watchman	4
Other expenses	20

It would also be very helpful if each society could be given a non-recurring grant of Rs. 1,000 which could be applied as paid-up share capital in order to assist a society in purchasing stocks of raw silk, etc. It would also be advantageous if, instead of providing for a Marketing Officer for silk cloths, a maximum subsidy of six pies per yard was given to each society on the cloth produced and sold within a period of three months from the time of production.

4. I regret that, owing to extreme pressure of work prior to my proceeding on leave, I have not been able to reply earlier to your letter.

17. Government of the Punjab.

(1) Letter, dated the 15/18th July, 1938, from the Secretary to Government, Punjab, Electricity and Industries Departments.

Subject:—PROTECTION FOR THE SERICULTURAL INDUSTRY.

In reply to your letter No. 510, dated the 14th May, 1938, I am directed to forward a copy of a letter No. 120-S, dated the 1st July, 1938, from the Director of Industries, Punjab, together with six copies of replies to the questionnaire relating to Handloom Industry received with your letter under reply. Copies of replies received from the three firms mentioned in the 3rd paragraph of the Director of Industries' letter are also enclosed.

Copy of letter, No. 120-S., dated the 1st July, 1938, from the Director of Industries, Punjab, to the Secretary to Government, Punjab, Electricity and Industries Departments, Simla.

Subject :- PROTECTION FOR THE SERICULTURAL INDUSTRY.

With reference to Punjab Government endorsement No. 2937-I. & L. 38/20052, dated the 2nd June, 1938, on the subject noted above, I have the honour to forward herewith the reply to the Questionnaire for Local Governments Sericulture Enquiry (Handloom weaving) with two spare copies. Five more spare copies will be submitted to Government by the 5th instant.

2. As desired in paragraph 3 of the Secretary, Tariff Board's letter No. 510, dated the 14th May, 1938, copies of the questionnaire were forwarded to the undermentioned 25 silk, artificial silk and mixturo goods weaving factory owners in the Punjab:—

1. Messrs. Kushi Ram Amar Nath, Lawrence Road, Amritsar.
2. Messrs. Mangoo Mall Lal Chand, Krishna Lungi Factory, Batti Hatta, Amritsar.
3. Messrs. Sat Nam Weaving Factory, Katra Sher Singh inside Hall Gate, Amritsar.
4. L. Kanshi Ram of Messrs. Hira Woollen and Silk Mill, Ghee-Mandi, Amritsar.
5. L. Salig Ram of Messrs. Harbans Lal Chuni Lal, Grand Trunk Road, Amritsar.
6. Messrs. Badar-ud-din Abdul Majid, Silk Weaving Factory, inside Hathi Gate, Amritsar.
7. Messrs. Textile Manufacturing Association, Chowk Katra Ahluwalia, Amritsar.
8. Mr. Dowan C. Mehra, Mehra Textile Mill, Jail Road, Amritsar.
9. L. Shori Lal of Messrs. Nathu Mall Shori Lal, Guru Bazar, Amritsar.
10. L. Kahan Chand of Messrs. Karam Chand Kahan Chand, Prahlhu Weaving Mill, Outside Gurgiana, Amritsar.
11. Messrs. Bharat Udhar Cloth Manufacturing Company, outside Ghee-Mandi, Amritsar.
12. L. Kidar Nath, Proprietor, Model Silk and Woollen Factory, Kaulsar, Amritsar.
13. L. Panna Lal, Proprietor, Imperial Textile Mill, Pulti-Ghar, Amritsar.
14. Messrs. Balloo Mall Chuui Lal, Hoshiarpur.
15. Messrs. Rallia Ram Murlu Lal, Bazar Nobarian, Jullundur City.
16. Messrs. Khushi Ram Thakar Dass Ohri, Hoshiarpur.
17. Messrs. Kishan Chand Ram Suran, Basti Guzan, Jullundur City.
18. Messrs. Kanaya Mall Nanak Chand, Basti Guzan, Jullundur City.
19. L. Gujar Mall of Messrs. Middi Mall Babu Lal, Ludhiana.
20. R. S. L. Amar Nath, Nationals Limited, Ludhiana.
21. L. Banwari Lal of Messrs. Ball Silk Weaving Factory, Ludhiana.
22. Mr. Hussam-ud-din, Secretary, Weavers' Association, Ludhiana.
23. Seth Tej Bhan of Messrs. Thakar Dass Ghannu Mall, Multan City.
24. L. Chhatta Ram of Messrs. Chhatta Ram & Sons, Multan City.
25. Mr. Piyara Lal, Punjab Weaving Factory, Sialkot.

3. Replies have so far been received only from Nos. 16, 21 and 25. Five copies of the replies of each are submitted herewith.

[Enollosure I.]

Replies to Handloom Questionnaire.

1. The total number of handloom weavers in the Punjab engaged in the branches of handloom industry referred to in the question are shown below :—

(i) Handloom weavers engaged in weaving pure silk goods only	2,000
(ii) Handloom weavers engaged in weaving both cotton and silk mixed goods (i.e., in making cotton piece-goods with silk borders)	500
(iii) Handloom weavers engaged in weaving cotton goods only :—	
(a) Whole-time	200,899
(b) Part-time	67,355
Total	<u>268,254</u>

The above figures require a word of explanation. In the Punjab Government memorandum submitted to the Tariff Board in 1933, the number of handloom weavers engaged in weaving pure silk goods only was stated to be 3,000. There has since been a fall in the intervening period in the number of silk weavers. As will be observed from the replies to other questions of the Questionnaire, spun silk has proved more popular than real silk and accordingly there has been some diversion from pure silk weaving to spun silk weaving. The number of spun silk weavers is estimated at about 4,000 to 5,000. So that if spun silk weavers are included amongst silk weavers (pure), there is a total of between 6,000 to 7,000 engaged in the industry.

The production of cotton piece-goods with silk borders has practically gone out of vogue giving place to spun silk sarees and mixture goods which are in some cases cheaper and better looking than cotton sarees with silk borders. Secondly the Punjab imports fairly large quantities of cotton sarees with silk borders from Madras and Calcutta with which the local products cannot compete in price and quality.

The figures regarding cotton weavers were collected sometime in 1935. As there has been no survey of the cotton handloom industry since then, the figures for 1935 have been given in reply to this question. There has been no appreciable change in the numbers of cotton weavers in the Punjab since 1935.

In addition to the figures given above it may be mentioned that there are in the Punjab about 25,000 weavers engaged on the production of artificial silk, staple fibre yarn and mixture goods, besides about 5,000 weavers engaged on weaving woollen goods. It may, however, be noted that the weavers do not religiously stick to weaving only one particular class of fabrics and their numbers keep on changing from one class of goods to another class according to the prevailing demands of the market and change of seasons. But the figures given above may be taken to be a fairly correct estimate of the weavers engaged on different kinds of fabrics in this province.

2. The silk weavers obtain their supply of raw materials from the merchants and stockists or from the middlemen who have established shops in every silk weaving centre. The raw silk consumed in the industry is both Indian and imported. Among Indian qualities Kashmir silk is most prominently used. Other varieties are received from Bengal (Maldah) and Mysore. A small though increasing quantity is produced locally in the province. Large quantities of silk yarn used to be imported from Yarkand, but during 1937-38, there were no imports of Yarkand silk yarn as the Yarkand trade was reported to be completely shifted to Russian markets. Spun silk, artificial silk yarn, staple fibre yarn and gold thread are all imported mainly from Japan excepting for some quantities from Italy and China. A small quantity of gold thread is obtained from Delhi.

The price paid per lb. in June, 1938, for various qualities of yarns used in the Punjab is given below:—

	Per lb. Rs. a.
<i>Raw Silk--Kashmir—</i>	
18/22, 30/35, 40/45, 90/110	5 8
<i>Bengal (Maldah)—</i>	
18/22, 30/35, 40/45	4 12
<i>Punjab—</i>	
30/35, 40/45, 90/110	6 0
<i>Japan—</i>	
30/35, 40/45, Lari brand	5 0
Sunehri	3 12
Dupehri	3 12
<i>Italy—</i>	
30/35, 40/45, Italy brand	3 10
<i>China (received through Mandalay)—</i>	
30/35, 40/45, 90/110 Maya and Lavi brands	3 12 to 4 0
<i>Mysore (twisted)—</i>	
18/22, 30/35, 40/45, 90/110	6 8
Silk yarn twisted not imported.	
<i>Spun silk—</i>	

Count of yarn.	Quality mark.	Place of manu- facture.	Rates.	Weight per bundle.
<i>Spun silk.</i>			Ra. a. p.	lbs.
140/2	B, Fuji	Japan	53 8 0	11
"	2, X	"	53 8 0	11
"	Nitto Mixed	"	38 8 0	11
"	B, Nilko	Italy	51 8 0	11
160/2	"	"	52 0 0	11
"	2, X	Japan	52 10 0	11
210/2	3, X	"	58 0 0	11
"	3, S	"	56 8 0	11
"	B, Fuji	"	55 4 0	11
"	1, X	"	55 0 0	11
"	3, A	"	54 0 0	11
"	Nilko Mixed	Italy	45 8 0	11
"	Malan "	Japan	45 4 0	11
"	Malan	"	55 0 0	11
"	Fuji mix	"	45 0 0	11

Count of yarn.	Quality mark.	Place of manufacture.	Rates.	Weight per bundle.
<i>Tufi.</i>			Rs. A. P.	lbs.
60/2 . . .	Saraswati . .	Italy . . .	7 8 0	2
60/2 . . .	Cow . . .	" . . .	7 10 0	2
80/2 . . .	" . . .	" . . .	8 8 0	2
<i>Tussa.</i>				
140/2 . . .	B, Fuji . . .	Japan . . .	39 12 0	11
120/2 . . .	" . . .	" . . .	39 4 0	11
<i>Silk waste yarn.</i>				
22/2 . . .	..	Japan . . .	1 5 6	1
40/2 . . .	..	" . . .	1 8 0	1
<i>Artificial silk yarn.</i>				
150, A . . .	Lal Ghora . .	Japan . . .	7 8 0	10
150 AAA . . .	..	" . . .	7 6 6	10
150 dull . . .	..	" . . .	8 0 0	10
120 " . . .	..	" . . .	8 4 0	10
300 Art . . .	..	" . . .	7 12 0	10
250 A . . .	..	" . . .	7 14 0	10
<i>Gold thread.</i>				
Russia-Lametta (lower quality.)	..	..	0 8 0 to 0 12 0 per tola	..
Delhi-real . . .	..	..	1 2 0 to 1 8 0 per tola.	..

3. Yarn made from staple fibre is generally used in the west in weaving spun silk goods.

Taking up the important stations: In Ludhiana and Hoshiarpur the proportion is 60 per cent. staple fibre yarn and 40 per cent. spun silk. In Sialkot and Jalandhar equal quantities of staple fibre and spun silk yarn are used while in Amritsar the proportion of staple fibre yarn used varies from 35 to 50 per cent. All staple fibre yarn used in the Punjab is reported to be imported from Japan. The prices of staple fibre yarn of various counts at Amritsar are shown below:—

Number of count.	Description of quality.	Rate per bundle of 10 lbs. in Rs.	
		Middle of May 1938.	17th June 1938.
		Rs. a. p.	Rs. a. p.
20/2	Mikko	8 7 0	9 8 0
30/2	"	8 8 0	9 6 0
30s	"	8 4 0	10 0 0
40s	Paramount	8 8 0	11 6 0
60/2	"	11 3 0	11 5 0
80/2	"	13 4 0	14 2 0
100/2	"	15 0 0	16 0 0

4. Excepting at Multan and Khushab where staple fibre yarn has not yet found favour among silk weavers, staple fibre goods have practically ousted spun silk goods at all other silk weaving centres in the province. Staple fibre yarn was introduced in the Punjab markets early in 1937. Before the introduction of staple fibre yarn Ludhiana used to produce about Rs. 25 lacs worth of spun silk goods. During the last year only two lacs worth of spun silk goods were turned out at Ludhiana while the value of staple fibre goods and artificial silk goods made at this centre amounted to nearly Rs. fifty lacs registering an increase of about Rs. twenty-five lacs within the last two years. In Jalalpur, Jattan and Sialkot, staple fibre yarn is reported to have replaced spun silk to the extent of about 75 per cent., while at Amritsar the replacement of spun silk by staple fibre yarn is estimated at nearly 80 per cent. The staple fibre goods have been well received in the market by the poorer and middle classes on account of their softness and silky feel and low prices. It is now generally known both by the producers and the consumers that staple yarn goods do not retain their looks after two or three washings and are not durable, and hence some factory owners, weavers and cloth merchants have expressed the opinion that the importance and popularity of staple fibre yarn products is likely to be short lived. But cheapness and attractive look will still enable the staple fibre yarn to retain some footing in the market.

5. All the four operations mentioned in this question are done by the weavers themselves with the help of their family members. In some cases e.g., at Multan, twisting, dyeing, doubling and warping are done by different people specialising in each operation. Yarn and silk is received in warp form.

The Amritsar factory owners do the twisting work in their own factories but get the winding done by outside female labour who do it in their own homes. All other processes are performed by the factory employees.

6. Warp is always twisted—colloquially termed at Amritsar as *Vatal*—and the weft used is mostly without any twist. Only in a few cases is *Vatal* weft used. The Amritsar factories employ organzino silk (twisted) in the warp and raw silk gummed or degummed, white or dyed according to requirements in the weft.

7. The organisation of the silk industry generally speaking still continues to be in the hands of the merchants who finance it, excepting in the cases of a small minority of weavers who purchase their own yarn and sell their products themselves or where the weaver works for wages for factory owners

in their factories. At Sialkot the merchants are the proprietors of weaving factories and employ weavers both on piece-wage system and monthly basis. In Jalalpur, Jattan, the weavers' work for the merchants on piece-wage system both in their cottages and in factories. At Khushab cloth merchants supply yarn to the weavers and get the goods manufactured on piece-wage system. In Amritsar the raw silk weaver is mostly financed by the merchant, but the spun silk industry is largely in the hands of factory owners. In Multan the weavers work for *Ustakars* who receive the yarn from merchants and supply it to the weavers for weaving. The *Ustakars* charge Re. 1 to Re. 1-4 per warp supplied to the weavers.

The weavers are generally satisfied with the present system of financing the industry by merchants. They get a fair deal from the merchants in their dealings with them during the busy season, but in the slack season the middlemen get the upperhand over the needy weaver. Owing to the high price of the raw material, the weaver who is generally poor cannot afford to make heavy investments on his own account. Accordingly the middlemen who finance the industry during the slack season and runs the risk of future fluctuations in the market besides incurring expenses on storage of stocks and loss of interest on the capital blocked is in a position to dictate his own terms.

The main problem of the weaver is the marketing of the finished goods. He needs some help in designing as well. A marketing organisation somewhat similar to the ones provided for cotton goods under the grants made by the Government of India should be a great help.

8. The silk weavers of Multan produce *Gulabdan*, *Darvai*, *Lungis*, *Tekhand* (loin cloth) *Patka*, *Garhi* and handkerchiefs. There has been no change in the production since the time of the last Tariff Board. The varieties and designs produced at Multan stand in a class by themselves and do not suffer from foreign competition as there are no imported fabrics that compete directly with them. Similarly there is little direct foreign competition from imported goods in *Lungis* and *Darvai* produced at Khushab, and in dupattas, *Lungis* and suitings produced at Jalalpur, Jattan and Sialkot, while in shirting cloth there is severe foreign competition. The production of silk *darvai* sarees, *dupatta*, *lungis*, suitings and shirtings at Amritsar is reported to have gone down considerably on account of replacement of these goods by mixed staple fibre materials, while suitings and shirtings also experience keen foreign competition.

Another important feature of the intervening period since the time of the last Tariff Board has been the heavy fall in prices of imported goods as compared with those prevailing in 1934. Comparative figures in respect of certain varieties are given below:—

Description of goods.	Dimensions.	Prices in	Prices in
		1934.	1938.
		Rs. per yard.	Rs. per yard.
(i) Boski Shangi (Lal Gora)	29" x 50 yards	1 5 0	6 13 0
(ii) Spun striped . . .	27" x 25 "	2 0 0	0 13 0
(iii) Palace Plain . . .	54" x 25 "	2 14 0	1 3 0
	8 m/m		
Mixture of silk and artificial silk—			
(i) Hari Chall (satin-cotton and silk) . . .	33" x 25 "	1 7 0	0 10 0
(ii) Silk Pachranga (Puro silk and artificial silk)	27" x 25 "	1 14 0	1 0 0
Artificial Silk Sheeze (Anda Boski)—			
(i) Rangin Pata . . .	26" x 24½ "	0 11 6	0 6 0
(ii) Satin Plain . . .	26" x 30 "	0 8 0	0 4 6
(iii) Sheeze Plain . . .	26" x 50 "	0 12 0	0 5 9
(iv) Taffeta flowered . . .	26" x 30 "	0 8 0	0 4 6
(v) Shanan Crepe . . .	38" x 25 "	1 2 0	0 11 0

9 & 13. A statement showing the total production of goods made from silk, yarn, spun silk, artificial silk yarn and gold thread and the approximate value of annual production is given below:—

Description of materials.	Annual production of yards.	Value in rupees.
Raw silk	5,000	5,000
Silk yarn	16,00,000	15,00,000
Spun silk	40,00,000	30,00,000
Artificial silk yarn	5,00,00,000	1,15,00,000
Gold thread	3,600 tolas.	45,000

Raw silk.—The cloths produced are tie cloth and shirting.

Silk yarn.—One third of the figures only about Rs. 5,00,000 are in respect of cloths produced with twisted silk in warp and raw silk in weft. The varieties turned out are real *daryai*, *lungi* and *tehband*. The rest of the figures are in respect of suitings, shirtings, *daryai*, *lungis*, *tehband* and *dupattas* produced with spun silk in the warp and raw silk in the weft.

Spun silk.—The figures represent goods produced with spun silk for warp and weft and spun silk in warp and staple fibre yarn in weft. The proportion is estimated at one-third of the former qualities and two-thirds for mixed goods.

Artificial silk yarn.—The goods included in this category have artificial silk yarn both in the warp and weft—dull and lustre.

Gold thread.—The qualities produced include *pagris*, *tehbands* and *gotis*.

10, 11 and 12. A statement showing (i) the number of days generally taken by a weaver to produce finished article from silk yarn, spun silk, artificial silk yarn and gold thread (ii) kind of silk used and quantity in each case and (iii) the length and breadth of the finished article and (iv) average retail price is given below. Raw silk as such is not used in warp. It is first re-reeled, sized and twisted. Raw silk is extensively used in the weft particularly in *daryai* cloth.

Description of cloth.	Kind of material used and quality.	Length and breadth of the piece.	Time taken in the production of finished piece per day of 9 hours on an average.	Average retail price.
<i>Silk yarn.</i>				Rs. a.
(a) <i>Daryai</i> and <i>Gulbadan</i> .	Warp 28/32 twisted silk, weight 3.51 lbs., Weft 45/40 raw silk, weight 1.57 lbs.	Length 72 to 75 yards width 22½"	27 days.	1 4 per yard.
(b) <i>Mushandi</i> <i>Lungi</i> .	Warp 28/32 twisted silk, weight 1.25 chhatank, weft 28/32 denier raw silk, weight 2.60 chhatank.	Length 5½ yards width 20".	2 "	7 8 per piece.

Description of cloth.	Kind of material used and quality.	Length and breadth of the piece.	Time taken in the production of finished piece per day of 9 hours on an average.	Average retail price.
<i>Spun silk.</i>				Rs. A. P.
(a) Suiting	Warp 140/2 spun silk, weight 1.92 ounces per yard, weft 140/2 spun silk, weight 1.92 ounces per yard.	Width 28" to 29".	5 to 6 yards per day.	1 12 0 per yard.
(b) Shirting	Warp 210/2 spun silk, weight .96 ounces per yard weft 210/2 spun silk, weight .96 ounces per yard.	Ditto	7 to 8 yards per day.	1 12 0 "
(c) Sarce	Warp 210/2 spun silk, weight 1.54 ounces per yard, weft 210/2 spun silk, weight 1.54 ounces per yard.	Length 5 yards width 45".	7½ yards per day.	5 4 0 per piece.
(d) Daryai	Warp 140/2 spun silk, weight .9 ounces per yard, weft 35/40 raw silk, weight .54 ounce per yard.	Length to 72 to 75 yards width 22½".	15 days per piece.	0 13 0 per yard.
(e) Suiting	Warp 140/2 spun silk, weight 1.92 ounces per yard, weft 100/2 stable fibre yarn, weight 2.25 ounces per yard.	Width 27" to 29".	5 yards per day.	1 8 0 "
<i>Artificial silk yarn.</i>				
(a) Boski plain	Warp 150-D, weight 1.3 ounces per yard. 1) weft 150, weight 1.3 ounces per yard.	Width 27" to 29".	10 yards per day.	0 5 6 "
(b) Spin shirt-ing striped.	Warp 150-D, weight 1 ounce per yard, weft 150-D, weight 1 ounce per yard.	Ditto	8 yards per day.	0 6 0 "

Description of cloth.	Kind of material used and quality.	Length and breadth of the piece.	Time taken in the production of finished piece per day of 9 hours on an average.	Average retail price.
				Rs. A. P.
(c) Sarree	Warp 100-D, weight 1.5 ounces, weft, 100-D, weight 1.6 ounces per yard.	Width 45".	6 yards per day.	0 8 0 per yard.
(d) Daryai	Warp 64/2 cotton mercerised, weight 1.25 ounces per yard, weft 150-D, artificial silk, weight 1.12 ounces per yard.	Length 125 yards width 22½".	16 days per piece.	0 7 0 "
<i>Gold thread.</i>				
Lungi	Warp 28/32 twisted silk, weight 1.5 ounces per yard, weft 28/32 raw silk, weight 1.09 ounces per yard, gold thread weight 6 tolas.	Length 6½ yards width 22½".	1 yard per day.	21 0 0 per piece.

14. Spun silk is used in the manufacture of coatings, shirtings, *sarees*, *dupattas*, *patka* (pagris) and pyjama strings. It is also used for warp in weaving daryai and lungis mixed with staple fibre yarn or puro silk.

15. The sericulture industry of the Punjab is yet in its infancy though it is developing. The number of reeler and the quantity of silk produced is yet very small indeed. The quantity of silk produced in the Punjab during the last year was fifty maunds. The weavers obtain their supply of yarn directly from stockists or middlemen as the case may be.

16. The merchants supply silk to weavers on credit throughout the province. The extent of the credit allowed depends upon the financial position and previous dealings of the individual weavers with the merchants concerned. In the Amritsar market the period for which credit is allowed varies from two to six weeks and interest is charged at about six per cent. per annum on the value of yarn supplied. In Sialkot and Jalandhar Jattan and Khushab supplies made on credit seldom exceeds rupees one hundred. Credit is usually given for a period of one month and the weavers have generally to pay one per cent. more on the cash price by way of interest. Similarly in Ludhiana credit is allowed for about one month and half to one per cent. is charged over the actual cash price. In Multan the organisation of the silk industry is in the hands of *ustakars* who are weavers themselves but who function as middlemen between the weavers and the *sahukars* or stockists of yarn. The *ustakars* receive the yarn from the dealers and supply it to the weavers and stand the guarantee for the safe and timely supply of cloth woven from the yarn received. The weavers work for the *ustakars* on piece work system. The *ustakar* settles up the weaving charges with the *sahukar* and charges Re. 1 to Re. 1.4 per warp

supplied to the weavers. This institution is on the whole liked by the weavers and dealers alike.

17. The wholesale importing merchant generally sells to retailers from whom the small weavers buy his supply. The factory owner and the big weaver who employs other weavers under him buy direct from the importers' agent in bales.

18. It is not clear whether the reference here is to silk yarn or to silk piece-goods.

So far as silk yarn is concerned, the main qualities of Indian silks (reeled) yarn used in the Punjab are Kashmir, Mulda, Bengal and Mysoro. All those kinds of yarns are considered superior to the imported yarns chiefly on account of the fact that Indian yarns are received in the market in a cleaner condition. The imported (reeled) yarn from China, Japan and Italy is not received in the market in as clear a condition as the Indian yarn. The imported reeled yarn is used mostly for ombroidory purposes. It is the imported spun silk yarn which is used extensively in weaving and is more popular in the market.

As regards silk piece-goods, most of the imported varieties are cheaper and more attractive than the local products. Some of the better class silk piece-goods such as shirtings, ladies dress materials, georgettes, crepes and satins are superior to those produced in India. Some qualities of goods, such as imported printed silks are getting increasingly popular as against the local products, owing to their cheapness and attractiveness. India is producing fairly substantial quantities of suitings, shirtings, and sarees, but still there is room for expansion. The Punjab is producing some small quantities of suitings, shirtings and sarees but specialises generally in *darvai*, *gulbadan* cloth, *mushadi lungis* and *tahmats*.

The opinion of the silk merchant is favourable to Indian silk, but he would prefer the prices to go down and the designs and qualities to be improved in certain varieties.

19. The silk yarn supplied by Kashmir is received duly sorted and graded according to deniers. The quantity of silk produced within the province is at present so small that the reelers do not feel it worth their while to sort or grade it and consequently pay no attention to it. It would certainly be to the advantage of the weaver if sorting and grading were introduced. It is further desirable that Indian reeling factories should properly test the yarn at all stages before issue. The uniformity in the texture of the yarn will improve the quality of the finished goods produced and will ultimately improve the demand for Indian silk piece-goods.

20. In Jalalpur Jattan, Sialkot and Khushab cloth merchants who supply yarn to the weavers get the cloth manufactured at piece-wage system. The weavers are not in any way responsible for the marketing of the goods turned out by them. So also is the case generally in Ludhiana. Some middlemen at that place, however, supply yarn to weavers and receive back the woven fabrics which they get finished themselves. Here again the weavers are paid weaving charges which are settled before hand and the weaver has nothing to do with the marketing of the finished goods. The *ustakar* system prevalent in Multan and referred to in detail in reply to question sixteen above absolves the weaver from the responsibility for the marketing of the goods produced by him.

Apart from the weavers who work for the middlemen on piece-wage system as at other places referred to above, certain weavers of Amritsar obtain yarn on credit from merchants to whom the finished articles are returned for marketing. In such cases the weavers have to pay interest on the value of yarn obtained from the date of the supply of the yarn to the date of the sale of the finished article at six per cent. per annum *plus*

half per cent. commission on the price of finished goods realised by the sale.

21. A fairly marked measure of progress has been achieved in the production of silks of standard denier qualities and of standard weight skeins and now there no serious complaints in the Punjab markets, for instance in respect of Kashmir silks which are chiefly used by real silk weaving industry. The 40/45 denier quality silk yarns received from Kashmir, Mysore and Bengal are of fairly uniform standard though the standard of quality of imported French, Japanese or Italian silks has not yet been touched. Further standardisation is, however, necessary in finer qualities of yarns used in weaving crepes and georgettes. This can be done by the establishment of conditioning houses in important silk producing centres by the Provincial or State Governments concerned for the benefit of the industry.

Efforts are also being made to advertise the Indian silks. The Kashmir state has appointed agents and sub-agents who persuade the weavers to use their yarns. Every effort is being made by the Punjab Government filature to standardise the yarn produced. Practical demonstrations are given in reeling standard qualities of yarns.

The real menace to the silk industry is the competition from spun silk and pure silk fabrics which are imported. Spun silk and spun silk fabrics are in fact not pure silk and the mixtures vary largely in different qualities. People who buy spun silk fabrics and weavers who use spun silk yarn cannot know or discriminate the mixtures, and accordingly occasionally pay more than they should for the imported stuff to the detriment of the local product. There is no legislation to control such adulterations, nor is there any rule in force to enquire that the exact mixtures should be marked on the piece of cloth or on the bundle of yarn for the information of the consumer or the buyer.

22. It is presumed that the word "re-reeling" in this question is a misprint for "reeling" as the question refers to the process of winding and not the process of twisting of yarn.

Steady progress has been made in reeling of Indian silks. It is true that five years back inferior qualities of Indian silks were not properly reeled and it was difficult to unwind the reeled silks. The present Kashmir, Mysore, Bengal and Punjab silks can be easily unwound as a result of the improved methods and processes of reeling adopted by Indian filatures. The difference in the proportion of loss in degumming in Indian silks and imported silks is also not very marked.

23. During the last five years artificial silk yarn has replaced raw silk to a considerable extent on account of its extreme cheapness, but owing to the comparative weakness of texture, the artificial silk fabrics are gradually losing favour with the buyers. The last two years have, however, witnessed the return of a marked preference for spun silk which for the purposes of this enquiry may be considered as nearly pure silk goods and the old position appears to be re-establishing itself in certain local markets. For instance the Punjab Weaving Factory, Sialkot, who were using artificial silk yarn in large quantities about two years ago have altogether discontinued its use.

24. It is a fact that spun silk which is gradually imported does not require rewinding and twisting but it may be pointed out that there is no guarantee that it is real silk. It is generally observed that the imported silks are of mixed qualities and are sold at cheap rates as real silk. As will be observed from replies to some of the other questions, Indian silks are dearer in price than imported silks and the weaver has to incur some expense in re-reeling and twisting while there is also some loss in degumming. Imported spun silk therefore continues to be a serious competitor in the raw silk market. The average price to the weaver in the Punjab

of spun silk ready to be used is Rs. 4-14 per lb., while that of the real silk is Rs. 8-14 per lb. as per details given below:—

Rs. A. P.

- (i) To obtain one pound of twisted silk ready for the loom the weaver has to purchase about 1 lb. 5½ ounces of silk as 25 per cent. is lost in degumming.

Cost of 1 lb. 5½ ounces of raw silk at Rs. 5-8 per lb. 7 5 4

- (ii) Add cost of re-reeling and twisting at As. 12 per lb.

Cost of 1 lb. of silk 8 1 4

The restricted demand for real silk goods on account of their high prices coupled with the comparative difficulty in their weaving makes spun silk weaving a more profitable job for the weaver. Moreover Indian silk goods, e.g., pure silk shirting cannot compare in finish and price with real silk shirting imported from Japan of the corresponding quality. The existing measure of protection has not accordingly proved sufficient for the development and growth of the real silk industry in the Punjab. The imports of "raw silk and cocoons" during 1934-35 to 1937-38 have continued to expand steadily as will be seen from the following figures:—

Years.	Value of imports of silk, raw and cocoons. Rs.
1934-35	57,46,902
1935-36	57,73,120
1936-37	61,41,547
1937-38	94,67,262

The protection duty of 25 per cent. *ad valorem* plus As. 14 per pound on silk yarn and of 25 per cent. *ad valorem* on silk yarn spun from waste has not proved sufficient to check imports, and it is necessary that in the interests of the development of the local industry the measure of protection should be raised. It is recommended that the *ad valorem* rate of duty should be raised to 35 per cent. plus Rs. 1-4 per pound for silk yarn and to 35 per cent. on silk yarn spun from waste silk.

25. Figures showing the cost price, sale price and weavers' wages for typical articles of cloth in important weaving centres in the Punjab since 1st April, 1931, are given below:—

Khushab.—Lungis and daryais are made in a large variety of designs and qualities. During the year 1934 to 1936, China silk of 140/62 counts was mostly used in the warp and Kashmir or Punjab silk in the weft in the manufacture of lungis. Towards the close of 1936, China silk was replaced to a considerable extent by mercerised cotton of 64/2 count in the warp and artificial silk of 150 AAA in the weft which gave what may be called imitation lungi. The necessary data regarding costing is given below:—

Lungi or loin cloth 5½ yards long by 27" wide warp China silk and weft Kashmir or Punjab silk.

Year.	Cost price per lungi. Rs. A. P.	Sale price per lungi. Rs. A. P.	Weavers' wages per lungi. Rs. A. P.
1934	4 12 0	5 0 0	2 4 0
1935	4 12 0	5 0 0	2 4 0
1936	4 12 0	5 0 0	2 4 0

Lungi or loin cloth 5½ yards long by 27" wide, warp mercerised cotton 64/2 and weft artificial silk 150AAA.

Year.	Cost price per lungi.		Sale price per lungi.		Weavers' wages per lungi.	
	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.
1937 . . .	2	0 0	2	1 0	1	0 0
1938 . . .	2	0 0	2	1 0	1	0 0

Lungi 7 yards long by 32" wide, warp China silk 140/62 and weft Kashmir or Punjab silk.

Year.	Cost price per lungi.		Sale price per lungi.		Weavers' wages per lungi.	
	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.
1934 . . .	8	10 0	9	0 0	4	0 0
1935 . . .	8	10 0	9	0 0	4	0 0
1936 . . .	8	10 0	9	0 0	4	0 0

Lungi 7 yards long 32" wide, warp mercerised cotton 64/2 and weft artificial silk 150AAA.

Year.	Cost price per lungi.		Sale price per lungi.		Weavers' wages per lungi.	
	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.
1937 . . .	4	0 0	4	4 0	2	0 0
1938 . . .	4	0 0	4	4 0	2	0 0

Cost per lungi with Yarkand silk in warp and Kashmir or Punjab silk in weft.

Year.	Cost price per lungi.		Sale price per lungi.		Weavers' wages per lungi.	
	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.
1938 . . .	11	13 0	12	0 0	5	0 0
Artificial silk in weft . . .	6	11 0	7	0 0	3	8 0

Daryai per yard width 22", warp mercerised cotton and weft artificial silk.

Year.	Cost price per lungi.		Sale price per lungi.		Weavers' wages per lungi.	
	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.
1934 . . .	0	6 3	0	6 6	0	1 6
1935 . . .	0	6 3	0	6 6	0	1 6
1936 . . .	0	6 3	0	6 6	0	1 6
1937 . . .	0	6 9	0	7 0	0	1 6
1938 . . .	0	6 0	0	6 3	0	1 6

JALAPUR JATTAN.

Lungi or loin cloth 3 yards in length and 1½ yards in width, weight 6 chhatanks, made from Tassa silk.

Year.	Cost price per lungi.			Sale price per lungi.			Weaverr' wages per lungi.		
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
1934 . . .	2	15	0	3	2	0	0	5	0
1935 . . .	2	15	0	3	2	0	0	5	0
1936 . . .	2	13	0	3	0	0	0	5	0
1937 . . .	3	5	6	3	7	0	0	4	6
1938 . . .	3	5	6	3	6	0	0	4	0

Lungi made from fibre yarn 3 yards by 1½ yards, weight 6 chhatanks.

Year.	Cost price per lungi.			Cost price per lungi.			Weavers' wages per lungi.		
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
1938 . . .	1	12	0	1	14	0	0	4	0

Dupatta made from pambi silk 3 yards by 1½ yards, weight 6 chhatanks.

Year.	Cost price per lungi.			Sale price per lungi.			Weavers' wages per lungi.		
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
1934 . . .	3	5	0	3	8	0	0	4	0
1935 . . .	3	5	0	3	8	0	0	4	0
1936 . . .	3	3	0	3	6	0	0	4	0
1937 . . .	3	10	0	3	12	0	0	4	0
1938 . . .	3	12	6	3	14	0	0	4	0

Tassa suiting, width 27".

Year.	Cost price per yard.			Sale price per yard.			Weavers' wages per yard.		
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
1934 . . .	0	14	0	1	0	0	0	1	6
1935 . . .	0	14	0	1	0	0	0	1	6
1936 . . .	0	12	6	0	14	0	0	1	6
1937 . . .	1	0	6	1	2	0	0	1	6
1938 . . .	1	1	0	1	2	0	0	1	6

Tassa shirting, width 27".

Year.	Cost price per yard.			Sale price per yard.			Weavers' wages per yard.		
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
1934 . . .	0	8	0	0	9	0	0	1	0
1935 . . .	0	8	0	0	9	0	0	1	0
1936 . . .	0	7	3	0	8	0	0	1	0
1937 . . .	0	8	9	0	9	0	0	0	9
1938 . . .	0	8	9	0	9	0	0	0	9

SIALKOT.

Tassa shirting, width 27".

Year.	Cost price per yard.	Sale price per yard.	Weavers' wages per yard.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
1936 . . .	0 12 6	0 14 0	0 1 6

No pure silk suitings were made in Sialkot in the years 1937-38, on account of the high price of yarn. The data for tassa mixed with staple fibre yarn is given below:—

Tassa and staple fibre yarn suitings, width 27".

Year.	Cost price per yard.	Sale price per yard.	Weavers' wages per yard.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
1937 . . .	0 11 6	0 13 0	0 1 6
1938 . . .	0 11 9	0 13 0	0 1 6

Tassa shirting, width 27".

Year.	Cost price per yard.	Sale price per yard.	Weavers' wages per yard.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
1936 . . .	0 8 0	0 9 0	0 1 6
1937 . . .	0 9 3	0 9 6	0 1 6
1938 . . .	0 9 3	0 9 6	0 1 6

LUDHIANA.

Plain boski (shirting cloth) 27" wide of spun silk and artificial silk yarn mixed.

Year.	Cost price per yard.	Sale price per yard.	Weavers' wages per yard.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
1934 . . .	0 8 3	0 9 0	0 1 6
1935 . . .	0 8 3	0 9 0	0 1 6
1936 . . .	0 8 3	0 9 0	0 1 3*
1937 . . .	0 8 3	0 9 0	0 1 0*
1938 . . .	0 8 3	0 9 0	0 1 0*

* The burden of the increase in the price of yarn was shifted to the weavers whose wages were reduced.

Sarees made from spun and artificial silk yarn mixed.

Year.	Cost price.			Sale price.			Weavers' wages.		
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
1934 . . .	4	0	0	4	8	0	1	0	0
1935 . . .	4	0	0	4	8	0	1	0	0
1936* . . .	...			...			...

MULTAN.

Daryai with Kashmir yarn in warp and weft. Length 60 yards, width $\frac{1}{2}$ yard.

Year.	Cost price per piece.			Sale price per piece.			Weavers' wages per piece.		
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
1934 . . .	58	6	0	63	6	0	16	0	0
1935 . . .	51	8	0	57	14	0	16	0	0
1936 . . .	61	8	0	67	8	0	15	8	0
1937 . . .	66	8	0	71	0	0	15	0	0
1938 . . .	61	0	0	65	0	0	15	0	0

Gulbadan.—The data for pure *gulbadan* is similar to that for *daryai*. The price, cost of production and weaving charges are also the same.

Patka lungi with Kashmir yarn in warp and weft. Length of piece 6 yards, width $\frac{1}{2}$ yard.

Year.	Cost price per piece.			Sale price per piece.			Weavers' wages per piece.		
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
1934 . . .	6	6	0	7	4	0	2	12	0
1935 . . .	5	6	0	6	2	0	2	8	0
1936 . . .	6	12	0	7	4	0	2	8	0
1937 . . .	6	12	0	7	2	0	2	4	0
1938 . . .	6	6	0	6	12	0	2	4	0

* The production of sarees out of spun silk and artificial silk mixed yarn was stopped in 1936, when a new kind of yarn known as Neon yarn was introduced in the Ludhiana market. The data regarding sarees made from Neon yarn is given below:—

Year.	Cost price.			Sale price.			Weavers' wages.		
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
1936 . . .	3	0	0	3	8	0	1	0	0
1937-38† . . .	...			...			...

† Witnessed the employment of staple fibre yarn mixed with artificial silk dull yarn in the manufacture of sarees at Ludhiana. The prices, etc., are shown below:—

Year.	Cost price.			Sale price.			Weavers' wages.		
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
1937-38 . . .	1	14	0	2	0	0	0	12	0

Soofi with spun silk in warp and cotton yarn in weft. Length of piece 125 yards, width $\frac{1}{4}$ yard.

Year.	Cost price	Sale price	Weavers' wages
	per piece.	per piece.	per piece.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
1934 . . .	46 12 0	49 4 0	11 0 0
1935 . . .	44 12 0	47 0 0	10 0 0
1936 . . .	44 4 0	46 8 0	10 0 0
1937 . . .	41 4 0	43 8 0	8 0 0
1938 . . .	40 0 0	42 0 0	8 0 0

AMRITSAR.

Reliable data regarding cost prices, sale prices and weavers' wages for the years 1934 and 1935 could not be collected. Figures are accordingly given in respect of the years 1936-37, 1937-38.

Real silk mushadi lungi: length of piece 5½ yards, width 18 to 20". Warp twisted and weft Kashmir silk, per piece.

Year.	Cost price.	Sale price.	Weavers' wages.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
1936-37 . . .	5 7 9	6 8 0	1 10 3
1937-38 . . .	5 3 6	5 14 6	1 5 0
June, 1938 . . .	5 3 6	5 14 6	1 5 0

Daryai with spun silk warp and Kashmir silk weft, width 22½".

Year.	Cost price.	Sale price.	Weavers' wages.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
1936-37 . . .	0 9 3	0 10 6	0 2 0
1937-38 . . .	0 9 6	0 11 0	0 2 3
June, 1938 . . .	0 9 9	0 11 3	0 2 4½

Suiting with spun silk in warp and weft, width 27", per yard.

Year.	Cost price.	Sale price.	Weavers' wages.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
1936-37 . . .	1 12 0	2 0 0	0 4 0
1937-38 . . .	2 0 0	2 4 0	0 4 0
June, 1938 . . .	2 0 0	2 4 0	0 4 0

Suiting with spun silk in warp and weft, width 27", per yard.

Year.	Cost price.	Sale price.	Weavers' wages.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
1936-37 . . .	0 13 0	1 0 0	0 3 0
1937-38 . . .	1 0 0	1 3 0	0 3 0
June, 1938 . . .	1 0 0	1 2 0	0 3 0

Shirting spun silk warp and weft, width 27", per yard.

Year.	Cost price.	Sale price.	Weavers' wages.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
1936-37 . . .	0 9 6	0 10 6	0 1 6
1937-38 . . .	0 11 0	0 12 0	0 1 6
June, 1938 . . .	0 11 0	0 12 0	0 1 0

Saree spun silk warp and weft: length 5 yards, width 44-45", per piece.

Year.	Cost price.	Sale price.	Weavers' wages.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
1936-37 . . .	3 2 0	3 4 0	1 0 0
1937-38 . . .	3 8 0	3 12 0	1 0 0
June, 1938 . . .	3 4 0	3 8 0	0 12 0

Coating spun silk warp and staple fibre yarn weft, width 27", per yard.

Year.	Cost price.	Sale price.	Weavers' wages.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
1936-37 . . .	Not produced.		
1937-38 . . .	1 2 0	1 4 0	0 3 0
June, 1938 . . .	1 0 0	1 2 0	0 3 0

26. It is quite true that the development of sericulture in India depends largely upon the existence of a large and growing market. Such a market does exist. The production of real silk goods in the Punjab is almost entirely confined to handlooms, but the weaving of spun silk is being done to an appreciable extent on power looms working in cottages and small scale factories. But the position regarding assistance to the silk, spun silk, artificial silk and mixture weaving by means of protection remains unchanged from the time of the last Tariff Board and it is still necessary that any increase in the duty on imported silk yarns should be accompanied by an appreciable increase in the duty on imported silk manufactures. It may, however, be noted that the present rate of protective duty, both on yarns and piece-goods, has not proved adequate enough and has failed to achieve the desired results in improving the sericulture and real silk weaving industries on account of the heavy imports of mixture goods which by virtue of their low prices and attractive designs have very adversely affected the local production. The suggested increase in the rates of import duty on yarns has been given in reply to question No. 24 above. The recommended increase in the duties on piece-goods is as follows:—

Description of goods.	Existing duty.	Duty recommended.
Fabrics not otherwise specified containing more than 90 per cent. of silk including such fabrics embroidered with artificial silk—		
(a) Pongee	50 per cent. <i>ad valorem</i> plus Rs. 1 per lb.	60 per cent. <i>ad valorem</i> plus Rs. 1-8 per lb.
(b) Fulji, Boski and corded (excluding white cord).	50 per cent. <i>ad valorem</i> plus Rs. 1-8 per lb.	60 per cent. <i>ad valorem</i> plus Rs. 2 per lb.
(c) Other sorts	50 per cent. <i>ad valorem</i> plus Rs. 2 per lb.	60 per cent. <i>ad valorem</i> plus Rs. 3 per lb.
Fabrics not otherwise specified containing more than 10 per cent. and not more than 90 per cent. of silk—		
(a) Containing more than 50 percent of silk or artificial silk or of cloth.	50 per cent. <i>ad valorem</i> plus Rs. 2 per lb.	75 per cent. <i>ad valorem</i> plus Rs. 3 per lb.

Description of goods.	Existing duty.	Duty recommended.
(b) Containing not more than 50 per cent. of silk or artificial silk or of both—		
(i) Containing more than 10 per cent. artificial silk.	50 per cent. <i>ad valorem</i> or Re. 1-8 per lb. whichever is higher.	75 per cent. <i>ad valorem</i> or Rs. 2-8 per lb., whichever is higher.
(ii) Containing no artificial silk or not more than 10 per cent. artificial silk.	50 per cent. <i>ad valorem</i>	75 per cent. <i>ad valorem</i> .
Fabrics not otherwise specified containing not more than 10 per cent. silk, but more than 10 per cent. and not more than 90 per cent. artificial silk—		
(a) Containing 50 per cent. or more cotton—		
(i) of British manufacture .	30 per cent. <i>ad valorem</i> or 2 annas per square yard whichever is higher.	55 per cent. <i>ad valorem</i> or 3 annas 8 pias per square yard whichever is higher.
(ii) not of British manufacture.	50 per cent. <i>ad valorem</i> or 3½ annas per square yard whichever is higher.	75 per cent. <i>ad valorem</i> or 4 annas 10½ pias per square yard whichever is higher.
(b) Containing no cotton or containing less than 50 per cent. cotton—		
(i) of British manufacture .	30 per cent. <i>ad valorem</i> or 2½ annas per square yard whichever is higher.	55 per cent. <i>ad valorem</i> or 4 annas 7 pias per square yard whichever is higher.
(ii) not of British manufacture.	50 per cent. <i>ad valorem</i> or 4 annas per square yard whichever is higher.	75 per cent. <i>ad valorem</i> or 6 annas per square yard whichever is higher.
Fabrics not otherwise specified containing not more than 10 per cent. silk or 10 per cent. artificial silk or 10 per cent. wool but containing more than 50 per cent. cotton and not more than 90 per cent. cotton—		
(a) of British manufacture .	25 per cent. <i>ad valorem</i>	50 per cent. <i>ad valorem</i> .
(b) not of British manufacture	50 per cent. <i>ad valorem</i>	75 per cent. <i>ad valorem</i> .

Description of goods.	Existing duty.	Duty recommended.
<i>Artificial of silk.</i>		
Fabrics not otherwise specified but containing more than 90 per cent. of artificial silk—		
(a) of British manufacture	30 per cent. <i>ad valorem</i> or 2½ annas per square yard whichever is higher.	55 per cent. <i>ad valorem</i> or 4 annas 7 pies per square yard whichever is higher.
(b) not of British manufacture	50 per cent. <i>ad valorem</i> or 4 annas per square yard whichever is higher.	75 per cent. <i>ad valorem</i> or 6 annas per square yard whichever is higher.

27. Quite a large number of small factories producing silk goods with spun silk yarn and mixtures have come into existence during the last four or five years. Most of these factories would not come within the definition of 'factory' as contained in the Factories Act. Some of the factories which were originally producing cotton goods have wholly or partly changed over to the production of silk goods. It is mostly the imported spun silk yarn which is used by these factories as well as by the large numbers of handloom weavers scattered practically all over the province. Indian reeled yarn is generally used by factories producing shirtings, suitings, *sarees*, *dareai gulbandan* and *lungis*. The preference for imported spun silk is due entirely to its cheapness.



सत्यमेव जयते

28. The statement below shows the approximate cost of manufacture of typical articles of silk cloth at selected centres :—

Name of station and description of cloth.	Cost of raw material.	Twisting and winding charges.	Dyeing charges.	Weaving charges.	Cost of other labour.	Other charges.	Total.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
<i>Jalalpur Jattan and Sialkot.</i>							
Lungi, 3 yards \times 1½ yard, made of Tassa silk yarn.	3 0 0	0 0 6	0 0 6 washing. 0 3 0 dyeing.	0 4 0	..	0 0 6	3 5 6
Lungi, 3 yards \times 1½ yard, made of staple fibre yarn.	1 3 3	0 0 6	0 0 6 washing. 0 0 6 dyeing.	0 4 0	..	0 0 9	1 12 0
<i>Jalalpur Jattan.</i>							
Dupatta, 3 yards \times 1½ yard, made of Pambi silk.	3 6 0	0 0 6	0 1 6 finishing and washing.	0 4 0	..	0 0 6	3 12 6
Suiting cloth from Tassa silk, 27" wide . . per yard.	0 14 0	0 0 6	0 0 6 washing.	0 1 6	..	0 0 6	1 1 0
Shirting cloth from Tassa silk, 27" wide . . per yard.	0 7 3	0 0 3	0 0 3 washing.	0 0 9	..	0 0 3	0 8 9
<i>Sialkot.</i>							
Mixed suiting cloth from Tassa 140/2 counts and staple fibre, 27" wide per yard.	0 9 3	0 0 6	0 0 3 dyeing. 0 0 3 finishing.	0 1 6	..	..	0 11 9

Shirting from Tasse silk, 27" wide . . per yard.

0 7 3 | 0 0 6 | .. | 0 1 6 | .. | 0 9 3

The weavers at Sialkot and Jalalpur Jattian are mostly paid on piece-wage system. Their wages vary from 9 pias to 2 annas 6 pias per yard according to the quality and design of the manufactured cloth.

Some weavers in the Punjab Weaving Factory, Sialkot, are paid on monthly basis. Their wages range from Rs. 15 to Rs. 26 per mensem.

Khushab.

Lungi, 5½ yards × 27" wide, mercerised cotton of 64/2 in warps and artificial silk 150 AAA in weft.

0 8 0
cotton.
0 6 0
artificial
silk.

..

0 2 0
dyeing and
sizing.

1 0 0
including
twisting
and
winding.

..

..

2 0 0

Lungi, 7 yards × 32", merce risen cotton in warp and artificial silk in weft.

1 0 0
cotton.
0 12 0
artificial
silk.

..

0 4 0
dyeing and
sizing.

2 0 0
including
twisting
and
winding.

..

..

4 0 0

Lungi with Yarkand silk in warp and Kashmir silk in weft.

3 0 0
15 tolas
Yarkand
silk.
3 8 0
20 tolas
Kashmir
silk.

..

0 5 0
dyeing.

5 0 0
including
twisting
and
winding.

..

..

11 13 0

Name of station and description of cloth.	Cost of raw material.	Twisting and winding charges.	Dyeing charges.	Weaving charges.	Cost of other labour.	Other charges.	Total.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
<i>Khushab</i> —contd.							
Lungi with Yarkand silk in warp and artificial silk in weft.	2 0 0 10 tolas Yarkand silk. 0 14 0 Artificial silk.	..	0 5 0 Dyeing.	3 8 0 including twisting and winding.	..	—	6 11 0
Daryai, width 25", per yard	0 3 6 warp weft 0 0 9 artificial silk.	..	2 0 0 Dyeing.	The total cost of production is Rs. 31-10-0 per piece. The sale price is Rs. 0-6-0 per yard and the piece fetches Rs. 45-0-0. The weaver's wage comes to Rs. 9-6-0.			
<i>Multan</i> .							
Pure Daryai 60 yards piece with Kashmir yarn in warp and weft.	34 12 0	4 4 0	4 6 0 Dyeing.	15 0 0	1 4 0 drafting and denting.	1 6 0 pirm winding and finishing.	61 0 0
Soofi 125 yards spun silk in warp and cotton in weft.	28 12 0	..	1 8 0 Dyeing.	8 0 0	0 12 0	1 0 0	40 0 0

Patka lungi with Kashmir yarn in warp and weft.	3 8 0	0 10 6	0 3 0 Dyeing.	1 13 0	..	0 3 6	6 6 0
<i>Ludhiana.</i>							
Plain Boski 27" wide of spun silk warp and artificial silk weft.	0 7 0	..	..	0 1 0	..	0 0 3	0 8 3
Saree staple fibre yarn in warp and artificial silk dull in weft.	0 9 0 warp. 0 7 0 weft.	..	0 0 6	0 12 0	..	0 1 6	1 14 0
<i>Amritsar.</i>							
Real silk mushadi lungi 18/20" x 54 yards, weft 28 to 32 denier, warp 28 to 32 twisted.	3 0 9 each.	0 2 9 each.	0 2 9 each.	1 5 0	..	0 5 6 warping. 0 1 4½ drafting. 0 1 4½ bleaching.	5 3 6
Suiting, real and spun silk, width 27", warp 140.2 spun silk, weft 45/53 denier real silk.	1 7 0 per yard.	0 1 0 per yard.	0 2 0 per yard.	0 4 0	..	0 1 0 warping and winding. 0 1 0 finishing.	2 0 0 per yard.

The data for *gulbadan* is the same as for *daryai*. The weaver's wages are paid per piece.

Name of station and description and cloth.	Cost of raw material.	Twisting and winding charges.	Dyeing charges.	Weaving charges.	Cost of other labour.	Other charges.	Total.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
<i>Amritsar—contd.</i>							
Daryai real and spun silk mixed 22½", warp 140/2 spun silk, weft 28/32 denier Kashmir silk.	0 6 10 per yard.	0 0 2	0 0 1½	0 2 4½ per yard.	0 0 1½ per yard for drafting and denting.	0 0 2 sizing.	0 9 9¼ per yard.
Suiting spun silk width 27", warp 60/2 spun silk, weft 140/2 spun silk.	0 11 0 per yard.	..	0 1 0	0 3 0 per yard.	..	0 1 0 finishing.	1 0 0 per yard.
Shirting spun silk width 27", warp 140/2 spun silk, weft 210/2 spun silk.	0 8 0 per yard.	..	..	0 1 6 per yard.	..	0 0 6 warping and winding. 0 1 0 finishing.	0 11 0 per yard.
Saree spun silk 44" × 45" × 5 yards, warp 140/2 spun silk, weft 210/2 spun silk.	2 2 0 per piece.	..	0 1 0	0 12 0 per piece.	..	0 4 0 preparation. 0 1 0 finishing per yard.	3 4 0 per piece.
Coasting staple fibre yarn and spun silk mixed, width 27", warp 140/2 spun silk, weft 140/2 staple.	0 10 0 per yard.	..	..	0 3 0 per yard.	..	0 2 0 preparation.	1 0 0 per yard.

29. The Co-operative Societies give loans to their Weaver members ordinarily in raw material. Cash loans are given in urgent cases to free a member from debt or to prevent him from incurring unavoidable debt. Advances of money in excess of the maximum credit limit of Rs. 200 may be given to members against the security of finished goods. The societies, when funds permit, take up the finished goods of members for sale paying the producer the full price or a fraction of it in advance.

30. The manufactured goods are generally sold in the neighbourhood of the area of production as the designs produced are primarily meant to cater for local needs. As already explained in reply to question No. 7 the weaver generally produces for the middleman who collects the goods and pays out wages to the weavers. As the marketing of the manufactured goods is mainly the concern of the middleman the weaver has to incur no expenses in transporting his goods.

Amritsar, Lahore, Multan and Ludhiana are important markets in the Punjab for handloom products and finished goods from all parts of the province are sent to these places for sale. Designs produced mainly for local consumption for instance at Sialkot, Jalalpur Juttan and Khushab are sold in Shahpur, Mianwali and Jhelum districts. About fifty per cent. of the silk goods manufactured in Multan are sold locally by the middleman or merchants for whom the weavers work on piece-wage system to petty dealers from suburban areas while the rest are exported by them to Sind, Baluchistan, Afghanistan and transborder areas. Apart from Punjab markets, and the transborder areas referred to above finished goods are sent to Delhi (all kinds of goods), Calcutta (boski, jori shawls and shirting), Nagpur (cheap artificial silk goods), Bombay (shirtings, boskia, spin shirtings, sarces, etc.).

31. Compared with the years 1934 to 1936, the demand for natural silk is slightly on the increase as a result of the growing disfavour in respect of artificial silk and staple fibre yarn goods. For the same reason the demand for spun silk fabrics is also increasing.

32. A small quantity of raw silk is produced locally in Punjab, but the quantities are bound to increase from year to year with the expansion of sericulture industry which has now been taken in hand. The other sources of supply of raw silk are Kashmir and Mysore States, Bengal, Mandalay in Burma which forwards China silk, Yarkand over the northern land frontier routes and Japan and Italy. The quantity of raw silk consumed in the various markets of the province in weaving is estimated at about Rs. 6,03,500.

33. There has been some turnover from imported to indigenous silk as a result of protection as well as the disfavour in respect of artificial silk and staple fibre yarn goods as stated in reply to question No. 31 above, but the extent of the turnover is not yet very appreciable.

34. One noticeable effect of the grant of protection to sericulture has been the increased import of cheaper substitutes in mixtures. Mixture goods with better finish and attractive appearance, principally from Japan, have flooded the markets and adversely affected the local silk industry.

Enclosure II.

Replies to the Questionnaire on the Sericulture Enquiry (Handloom Weaving) submitted by L. Ram Parkash Ohri, Proprietor of Messrs. Khushi Ram Thakar Dass Ohri, Artificial silk goods manufacturers, Hoshiarpur.

1. (a) Approximate total number of handloom weavers in the area is 20,000, majority of them are engaged in weaving cotton goods, khaddar mostly, and the rest of them manufacture Art Silk goods. Pure silk weaving is not done at all.

2. Weavers obtain Artificial Silk yarn from the merchants who import these yarns mainly from Japan. Artificial silk yarn is not manufactured in India at all. Ordinary Art Silk Yarns are mostly used by the weavers, the prices of which generally range between As. 10 per lb. to As. 14 per lb.

3. Staple yarn has also begun to be used by the weavers recently. This yarn is also imported from Japan and Italy.

4. Staple fibre goods are liked by the merchants more than Art Silk goods. Still there is no tendency for staple fibre yarn to oust silk or Art Silk.

5. Dyeing and preparing the warp are mostly done by the weavers.

7. The organisation of the Handloom Industry is still in the hands of merchants who finance it. But it cannot be said that the weavers do not get a fair deal under this system. Still the marketing schemes of the Department of Industries has much to be thanked for imparting to the ignorant weavers a fair knowledge how to use some improved appliances and in bringing them to a level of manufacturing standard goods in better qualities and better designs.

8. The following varieties of Art Silk are generally manufactured by weavers:—

- (1) Gulbadan—Art Silk.
- (2) Daryai—Art Silk.
- (3) Sarces—Art Silk.
- (4) Shirtings (various qualities)—Art Silk.
- (5) Lungis—Art Silk and cotton both.
- (6) Khes—Cotton.

Art Silk manufactured goods do not very favourably compete with the imported Japanese goods, though some bright prospects are expected especially if duty on imported yarn is decreased and on the manufactured cloth is increased. This kind of protection can safely serve as a great encouragement to poor weavers who shall be able to earn more and produce better cloth.

12. In general the length of piece is 35-40 yards, breadth 25-27" and price As. 2 to As. 4 a yard.

23. Artificial silk yarn has to a great extent replaced raw silk, mainly due to former's cheapness, Art Silk cloth market is daily on the increase and the weavers have practically left manufacturing superior cotton goods even.

Enclosure III.

Replies to the Questionnaire on the Sericulture Enquiry (Handloom Weaving) submitted by L. Bawari Lall, Managing Director, The Ball Silk Weaving Company, Limited, Ludhiana.

1. The total number of handloom weavers in Ludhiana is 5,000 to 6,000.

(i) About 10 per cent. are engaged in the weaving of Pure Silk, called as Spun Silk.

(ii) About 10 per cent. are engaged in the weaving of Cotton, and Spun silk fabrics, called as the mixed fabrics.

(iii) About 10 per cent. are engaged in the weaving cotton fabrics.

(b) Yes.

2. Weavers obtain their raw materials from local yarn dealers. Most of the yarns used by the weavers are imported ones. The prices are as under:—

	Rs. A. P.
	per lb.
80/2 Staple fibre	1 6 6
150 Art. Silk, Bright	0 12 0
150 Dull, Art. Silk	0 14 0
210/2 Spun Silk	5 0 0

3. Yes, it is used at different percentages, as it depends on the nature of cloth, the weaver wants to produce. Since the staple fibre came in, the use of spun silk has almost stopped, as the former has taken its place. It is obtainable from the local dealers, who get through the Bombay or Calcutta importers. The prices for different counts of staple fibre are as under:—

	Rs. A. P.
	per lb.
80/2 Staple fibre	1 6 6
40/2 Staple fibre	1 1 6
60/2 Staple fibre	1 2 6
40s Staple fibre	0 15 0

4. Staple fibre is quite different article than silk, and it has no competition with Silk or Spun Silk. While it does not show its artificialness if it is used in conjunction with the Spun Silk yarns. The consumers owing to the cheapness like it much.

5. (i) The winding is done by the weaver, and sometimes the twisting also, if he affords to have a machine in his factory.

(ii) Weaver does not do this job.

(iii) Some do it in their own, and some get these dyed through the dye houses.

(iv) This is done by the weaver himself.

6. 210/2 Spun Silk for the warp and the same for the weft.

7. Yes, it is the same. In the days of season the weavers get full wage and sometime they are overwaged, but in the dull days or off season they do not get the wages even and sometime have to sell at the cost of the yarn. Therefore if some storing house be organized then the weavers may get the regular and the proper wages, as it is the system in Japan. I saw while I was there last year, that they are financed 75 per cent. of the cost of the fabric (by calculating the yarn price and the wages) and a nominal interest is charged.

8. Yes, the same are still woven. These novelty fabrics or designed fabrics sells very well in comparison with the imported ones. The qualities which are in much competition are the plain boski 27" and 45", and these are handicapped since the imposition of a new duty in 1934. If the equivalent duty on the piecegoods be raised then this handicap to the plain qualities would never have occurred.

9. Raw silk is not woven in Ludhiana.

(ii) Silk not woven, and instead Spun Silk is woven. A weaver weaves 12 to 15 yards, in a day.

(iii) Artificial silk is also woven 12 to 15 yards a day, and it all depends on the nature of the cloth.

10. A weaver can produce a Spun Silk, or staple fibre or artificial silk saree just three to four days after he purchases the yarns.

11. It depends on the nature of the cloth, and quality, size.

12. These are made in various widths, such as 27", 45" and 54".
13. Silk goods (Twisted raw silk) is not produced in Ludhiana.
14. Spun silk is used in sarees and shirtings cloths. It is also used in conjunction with the staple fibre yarns to give designing effect while it is cross dyed, and also it is used in the warp or weft of a staple fibre cloth, where it gives better feel to the fabric.
15. There is not trade in Ludhiana for the silk (twisted raw silk) weaving.
16. The merchants supply their own yarns for the manufacture of cloth, or sometime the weavers buy the yarns and sell the cloth after adding his wages.
17. They sell direct to the weavers, or sometime through the agents.
18. Imported silk are much better for the warps, as they are supplied ready for the warps, i.e., duly twisted, etc.
19. Not interested.
20. Does not arise, as the silk weaving is not done here.
21. The present position is the same, and no efforts have been made to introduce the silk weaving to our centre.
22. I experienced that no improvement is made in Indian silk and it is in the same position as it was before the imposition of protective duty in 1934.
23. Yes, the raw silk or silk weaving is not easy, and every weaver is afraid to handle. So the weaving of spun silk, and staple-fibre, and artificial silk is much more done as compared with the silk, and also due to the immediate sale of these cheap fabrics.
24. Yes, the present duties on silk are quite adequate and does not require further protection, because it is feared that the more the protection is given the more the inefficiency increases. As far as I understand the Silk Industry did not prove to be progressed, since the last four years, while it has absolutely removed the spun silk industry, which is a clear loss to several thousands of weavers at various places. The silk weaving can be adopted if yarns are supplied in proper state.
25. 1934—Spun Silk Saree costs Rs. 5, sells Rs. 5-10, wages Rs. 1-4 per saree.
- 1938—Spun Silk Saree costs Rs. 4-6, sells Rs. 4-10, wages As. 9 per saree.
- 1931—Spun Silk and Art. Mix saree costs Rs. 3-8, sells Rs. 4, wages As. 14.
- 1938—New Art. Silk and Staple mix saree costs Rs. 1-12, sells Rs. 2, wages As. 7 to As. 8 per saree.
26. It has proved beneficial to the artificial silk weaving, since the protective duty is raised on the artificial silk piecegoods, while protection on the silk can only be saved if the equivalent duty on the piecegoods is raised.
27. No.
28. Boski, width 27" Spun Silk (100 per cent.)—

	As.	P.
Material	7	0
Winding	0	3
Weaving	0	9
Other charges	0	3
Total	8	3
	per yard	

and this sells at As. 9 per yard.

30. The finished articles are sold in the near markets such as Delhi and Amritsar. The weavers are not to bear any transportation charges, as he has to sell all his production with the local dealers, who sell these to the outsiders.

31. The demand of natural silk is not increasing, as the purchasing power of the masses is very poor.

32. No one use the raw silk here in Ludhiana, and if it is required sometime to make a mixture fabric, then these are had from Bombay markets, which are the Chinese or Japanese silk.

33. Do not know.

34. The Spun Silk weaving is almost totally stopped, owing to the reason that the equivalent duty on the silk piecogoods was not raised at the time of protecting the Sericulture Industry, in 1934.

[Enclosure IV.]

Replies to the Questionnaire on the Sericulture Enquiry (Handloom Weaving) submitted by the Proprietor. The Punjab Weaving Factory, Sialkot.

Letter, dated the 13th June, 1938, from the Punjab Weaving Factory, Sialkot, to the Director of Industries, Punjab, Simla.

With reference to your letter No. I. T. 4/8467, dated the 8th June 1938, I have the honour to submit below the answers to the questions.

1. (a) I cannot exactly say how many weavers there are in Sialkot District. So far as my factory is concerned there are 9 power-looms and 14 handlooms in it which are worked by the weavers.

(i) Sometimes all are used for making pure silk goods and sometimes half of them are used for making pure silk goods.

(ii) The answer is given in the above part (i).

(iii) No. We do not manufacture pure cotton cloth.

(b) Yes. There has been increase from the 1st April 1934. In April 1934, we had only 6 power-looms but now we have 9 power-looms and 14 handlooms in addition to three.

2. This question does not concern us. But we get our silk yarn and spun silk and staple from Bombay which is imported from Japan. Its price varies between 1 rupee 4 annas, to 4 rupees 8 annas per pound.

3. Yes. Sometimes staple fibre is used half and half which is obtained from Bombay, which is a Japan manufacture. Its price is Rs. 13 per bundle of 10 pounds.

4. I do not think there is any chance for staple fibre to oust silk from the market. Rich persons generally like to have silk cloth than a cloth made of staple fibre. It is only middle class and poor people, who, on account of cheapness of staple fibre, would like the cloth made of staple fibre. Staple is not generally considered as a good fibre in the market. But the reason is that because the purchasing power of the persons is decreasing, therefore, they would like to have a cloth made of staple fibre than the silken cloth because the latter is dearer than the former.

5. I can only say so much about this being myself the manufacturer that twisting, winding and dyeing all these things are done in my factory. Some work of doubling is done in the factory and most of the yarn we get from Bombay.

6. Spun silk and tussa silk are used for warp and for weft.

7. Does not concern us.

8. In our factory suiting, shirtings and Lungis are mostly manufactured. As regards the suitings there is no competition with the foreigners as far as we think. The competition is only between the factories themselves. But as regards the shirtings we have to compete with the Millowners and Japan goods also.

9. About the value of Rs. 40,000.

10. Does not concern us.

11. We use generally spun silk, which is imported from Japan.

12. The length and breadth of a suiting cloth is about 27' and length 28 yards and its price varies Rs. 12 to Rs. 2 per yard.

13. The approximate value of the silken goods is about Rs. 40,000.

15-17. Does not concern us.

18. The general opinion about the Indian silk is that it is less durable, dearer, less fancy and weaker than the imported silk. Moreover weavers feel much difficulty while using Indian silk in manufacturing cloth. This silk is very dear and at the same time it is not so beautiful and durable as the imported Japan silk. Therefore merchants generally do not use it and moreover only very fine and high priced things are manufactured by the Indian silk, for which there are very few markets and very few customers.

19 and 20. Do not concern us.

21. So far as we are concerned we have never used Indian silk, nor it has ever been brought to our notice that what kinds of silk are produced in India and what are its prices. As far as we know they are very dear and dearer than the imported silk.

22. Of course there is much difficulty to wind or degum the Indian silk than the foreign silk. We have never come across any improvement made in the method of re-reeling.

23. Two or three years ago artificial silk yarn was gaining ground and it was being replaced by the manufacturers in place of silk but on account of the weakness of that yarn we think that the demand for artificial silk yarn is decreasing. As regards to ourselves 2 or 3 years ago we were using that artificial silk yarn. But we are not using it now at all.

24. So far as we are concerned our opinion is that the increase of duty to protect the sericulture has been harmful to silk factories, because on account of the high duties the silk has become dear. As the silk has become dear the cloth manufactured by that silk is very dear. The purchasing power of the people is decreased to a large extent and they generally cannot afford to buy dearer things in the market. Therefore, as the silk suiting cloth has become dear they have fallen back on the mill manufactured cotton cloth as we have seen for the last 2 years. The production of our factory has decreased on account of the less demand and moreover we have no hope that Indian silk will be given to us cheaper and we will be able to compete with the foreign silk yarn manufacturers and I think further any increase of duty on the spun silk yarn, which is generally used for manufacturing coating and suiting cloth will be detrimental to the silk factories, because so far we have not seen any Indian silk which can be used for coating and suiting purposes of the same price as the foreign yarn. Therefore, in our humble opinion the duty on the spun and tussa silk, which is used for coating and suiting purposes, should be decreased so that we may be able to compete with the coating cloth manufactured by the mills.

25. Yes. Since April 1934, the cost price of a suiting cloth is increasing on account of increase in the price of the raw material on account of heavy custom duty. The sale prices have not increased in proportion to the cost price. Weavers' wages are generally the same.

26. There is no doubt that the increase of duty on imported silk fabrics and artificial silk goods may be helpful for the development of sericulture

in India. But so far we have not seen any sign of its development. While on the other hand increase of duties on imported silk yarn has done some harm to our industry, because on account of the increase of duty on silk yarn its price has arisen up and so the cloth manufactured by that yarn has also arisen in price as the purchasing power of the people in general has decreased, therefore, with the increase of the price of the silken coating and suiting, its demand has decreased. Moreover, the millowners have taken advantage of this time. They have introduced their coating and suiting cloth, which is accepted by the public very gladly and so this year there had been a very little demand for the suiting made of silk yarn. Therefore, in our humble opinion the duty on the silken yarn should be decreased so that we may be able to compete with the suiting and coating which is produced by the mill owners otherwise there is every probability that on account of the high price of the silk yarn handloom industry may suffer a great loss on account of their incompetency to compete with the mill made cloth. Of course, the present duty on imported silk fabrics and artificial silk goods have been beneficial to the handloom weavers, but on account of the increase of the duties on the silk yarn they have been deprived of this benefit at all.

27. There is none to our knowledge.

28. We give the estimation for one piece of coating cloth, which is about 28 yards long:—

- (i) About Rs. 28.
- (ii) Annas 8.
- (iii) Nil.
- (iv) About 3 rupees 8 annas per piece.
- (v) For finishing and washing about 8 annas per piece.
- (vi) Nil.

Some weavers are paid at the rate of 1 anna 6 pies to 2 annas 6 pies per yard on the handloom industry and some are paid monthly.

30. The manufactured articles are sold in important cities all over the Punjab such as Lahore, Rawalpindi, Amritsar, etc., etc. The manufacturers have to incur all the Railway expenses over and above the above-mentioned charges.

31. So far as we know it is decreasing.

32. Decreasing as far as we know.

33. So far as we know there is none.

34. As far as we know as the protection duties have been increased on the finished goods it has been beneficial to the handloom industries, because they have been able to compete with the foreign markets and so far as the protection duties on the raw material have been increased it has been harmful to the handloom industry because the sericulture cannot take place for raw material coming from Japan, because there is no sericulture factory which produces yarn sufficient to meet the demands of the silk industry and moreover it is very dear and if the cotton industrialists use it they cannot sell that cloth in the market on account of the hard competition. Moreover Japan is importing different kinds of fancy yarns, from which different kinds of coating and shirting cloth may be made. Sericulture have not been able to do that and we have no hope that they will ever be able to give us yarn which is fanciful and which is according to the taste of the people. Therefore our humble opinion is that so far as the protection duty on the finish goods is concerned it should be continued as it is, and so far as silk yarn is concerned it should be decreased because in this way we shall be able to compete both with the foreign markets as well as with the millowners and which will be helpful for the development of and increase of handloom industry.

Yes. The protection given to the sericulture has greatly affected the silk handloom industry. Sericulture is not a cheap silk and moreover we cannot get good silk from India. Neither it is of different varieties. Silk used in handloom industries is generally imported from Japan and the increase of duty on it has done great harm to the handloom industry, because on account of the rise of the cloth due to the increase of the price of silk yarn the demand of the people has decreased. On account of the decrease of purchasing power of the people they have begun to purchase suiting and coating cloth made of cotton in the mills. So the handloom industry has suffered much and as far as we know they have not been able to put in the market so much goods as they were putting previously. In our humble opinion the duty on the imported silk cloth may be increased but the duty on the raw material, which is used for coating and suiting purposes and which we cannot get from India should not be increased. Rather it should be decreased so that we people may be able to compete with the millowners as well as with foreign suiting cloth manufacturers that is imported here.

(2) *Letter, dated the 22nd July, 1938, from the Secretary to Government, Punjab, Electricity and Industries Departments.*

Subject: PROTECTION OF SERICULTURE INDUSTRY—GENERAL QUESTIONNAIRE.

In continuation of my letter, dated the 15th/18th July, 1938, on the subject noted above, I am directed to forward a copy of letter No. 11092, dated 13th July, 1938, from the Director of Industries, Punjab, together with five spare copies of replies.

2. Only one of the twenty-five firms mentioned in paragraph 2 of the Director's letter has sent a reply to only a few questions—copies enclosed. This reference is not being held up as you wanted a reply by 23rd July, 1938. Any further replies received hereafter will be forwarded to you without delay.

Enclosure.

Copy of letter No. 11092, dated Lahore, the 13th July, 1938, from the Director of Industries, Punjab, to the Secretary to Government, Punjab, Electricity and Industries Departments, Lahore.

Subject:—SERICULTURE ENQUIRY—GENERAL QUESTIONNAIRE.

With reference to Punjab Government endorsement No. 3100-I&I-38/485-S1255-S, dated 8th June, 1938, I have the honour to forward herewith the reply to the General Questionnaire—Sericulture Enquiry, with 6 spare copies.

2. As desired in paragraph 2 of the Punjab Government endorsement under reference, copies of the Questionnaire were forwarded to the under-mentioned 25 concerns interested in Sericulture industry for an expression of their views.

- (1) Messrs. Khushi Ram Amar Nath, Lawrence Road, Amritsar.
- (2) Messrs. Mangoo Mal Lal Chand, Krishna Lungi Factory, Batti Hatti, Amritsar.
- (3) Messrs. Sat Nam Weaving Factory, Katra Sher Singh, Inside Hall Gate, Amritsar.
- (4) L. Kanshi Ram of Messrs. Hira Woollen & Silk Mills, Gheo Mandi, Amritsar.
- (5) L. Salig Ram of Messrs. Harhans Lal Chuni Lal, Grand Trunk Road, Amritsar.

- (6) Messrs. Badar-ud-Din Abdul Majid, Silk Weaving Factory Inside Hathi Gate, Amritsar.
- (7) Messrs. Textile Manufacturing Association, Chowk Katra Ahluwalia, Amritsar.
- (8) Mr. Dewan Chand Mehra, Mehra Textile Mills, Jail Road, Amritsar.
- (9) L. Shori Lall of Messrs. Nathu Mal Shori Lall, Guru Bazar, Amritsar.
- (10) L. Kahan Chand of Messrs. Karam Chand Kahan Chand, Prabhu Weaving Mills, Outside Durgiana, Amritsar.
- (11) Messrs. Bharat Udbar Cloth Manufacturing Company, Outside Ghee Mandi, Amritsar.
- (12) L. Kidar Nath, Proprietor Model Silk & Woollen Factory, Kanlsar, Amritsar.
- (13) L. Pauna Lal, Proprietor Imperial Textile Mills, Putligarh, Amritsar.
- (14) Messrs. Balloo Mall Chuni Lal, Hoshiarpur.
- (15) Messrs. Rallia Ram Murli Lal, Bazar Noharian, Jullundur City.
- (16) Messrs. Khushi Ram Thanker Dass, Ohri, Hoshiarpur.
- (17) Messrs. Kishan Chand Ram Saran, Basti Guzan, Jullundur City.
- (18) Messrs. Kanaya Mall Nanak Chand, Basti Guzan, Jullundur City.
- (19) L. Gujar Mall or Messrs. Middi Mall Babu Lal, Ludhiana.
- (20) Rai Sahib Lala Amar Nath, National Ltd., Ludhiana.
- (21) L. Banwari Lal of Messrs. Ball Silk Weaving Factory, Ludhiana.
- (22) Mr. Hassam-ud-Din, Secretary, Weavers Association, Ludhiana.
- (23) Seth Tej Bhan of Messrs. Thakar Dass Ghanu Mall, Multan City.
- (24) L. Chhatta Ram of Messrs. Chhatta Ram & Sons, Multan City.
- (25) Mr. Piyara Lal, Punjab Weaving Factory, Sialkot.

2. A reply to a few questions has been received only from the Managing Director, the Ball Silk Weaving Company Limited, Ludhiana. 5 copies of his reply are submitted herewith.

1. In pursuance of the recommendations of the 6th Industries Conference held in 1934, Sericulture which had hitherto been dealt with by the Agriculture Department was transferred to the Industries Department in August, 1935. Before the transfer, the Agriculture Department used to distribute to private rearers about 100 ounces of silk seed imported from France. The Department of Industries took up seriously the development of the industry by popularising the rearing of silkworms, extending mulberry cultivation by the supply of seedlings and plants free of cost to the cultivators, taking up grainage operations and encouraging reeling as a cottage industry. Detailed accounts under each head of activity will be given under the relevant questions. The Department distributed 175 ounces of silk seed in 1936, 554 ounces in 1937 and 997 ounces in 1938. The rearing operations are carried on in 11 districts, viz., Gurdaspur, Kangra, Hoshiarpur, Ludhiana, Amritsar, Lahore, Sheikhupura, Gujranwala, Rawalpindi, Campbellpore and Sialkot. The total number of rearers in 1938 was 598. The rearing of silk worms and reeling operations are carried on as subsidiary industry by the agriculturists. There are no wholetime rearers or reelers as only one crop is harvested in a year.

2. The sericulture industry is organised under the Department of Industries, Punjab, and is under the intermediary charge of the Sericulture

Expert. The existing staff employed for the development of the industry is as below:

2 Inspectors	}	To supervise sericulture operations.
4. Sub-Inspectors		
6 Mukaddams		
1 Seed Supervisor	}	Grainage staff.
6 Seed Examiners		
1 Head Spinner	}	Reeling staff for training rearers in reeling in their villages.
1 Assistant Spinner		
6 Spinners		
1 Reeling Demonstrator	}	Reeling staff for Government Demonstration Filature and Silk Throwing Factory, Amritsar.
1 Twister		
5 Spinners on daily wages		
2 Cookers on daily wages		
1 Dresser on daily wages		
1 Fireman	}	Mulberry plantation staff at
1 Mechanic		
1 Head Mali		
5 Malis at Sujampur	}	Sujampur, Mulberry Nursery.
2 Malis at Palampur		
2 Malis at Kot Nainan		

Silk seed is supplied to rearers through the Sericulture staff who visit the rearers at their village homes or at fixed centres from where the villagers can conveniently arrange to take their supplies. The seed is supplied at the rate of Rs. 2 per ounce. The industry is financed from the provincial budget of the Department of Industries. The budget allotment for 1936-37 to 1938-39 has been as under:

	Rs.
1936-37	21,119
1937-38	24,280
1938-39	31,350

A grant of Rs. 10,000 was received by the Punjab from the Government of India on the advice of the Imperial Sericulture Committee for expenditure in 1938-39 for the production of disease-free seed. A further sum of Rs. 4,995 has been provided by the Punjab Government for the establishment of a Travelling Demonstration Party to impart training in silk cocoon reeling to the rearers in their villages.

A detailed note regarding marketing is given in reply to Question No. 51 of the Questionnaire.

3. As stated above, definite statistics are available only for the years 1937-38 and 1938-39 when the industry was placed on a regular basis. A statement showing the actual production of cocoons and raw silk together with the value of cocoons and raw silk produced is given below:—

Year.	Cocoons produced.	Raw silk obtained.	Value of cocoons obtained.	Value of raw silk obtained.
1937-38	390 maunds green. (130 maunds dry).	Mds. 32	Rs. 7,150 at Rs. 55 per maund (average price).	Rs. 16,640 at Rs. 13 per seer (average price).
1938-39	600 maunds green. (200 maunds dry).	50	Rs. 11,000 at Rs. 55 per maund (average price).	Approximate Rs. 22,000 at Rs. 11 per seer (average price).

The lower price for raw silk in the current year is due to the large quantities of old stock placed on the market by the Kashmere State, which has resulted in a drop in the price of fresh silk.

The present average yield from 1 ounce of silk seed is about 10 seers of dry cocoons which can be increased to a maximum of 15 seers per ounce with the improvement in the conditions of rearing, *e.g.*, establishment of rearing houses, etc.

4. As the sericulture industry has been very recently established in the Punjab, no attempt could so far been made to ascertain the silk contents of the typical varieties of locally produced cocoons or to compare it with Chinese, Japanese and other cocoons. We are yet in the experimental stages, but this matter will be seriously taken up when the reeling of this year's crop is done.

5. So far silk worms of univoltine white and yellow races have been reared in the Punjab. An experiment for the production of bi-voltine cocoons with one ounce of seed was made during this year, but the result achieved was not hopeful.

6. There are no special rearing houses in the Punjab. Rearers rear the worms in their own dwelling houses or construct a small thatched house which they make from mud, straw and wood which are available to them almost without any cost. The approximate cost of constructing and equipping an up-to-date rearing house for worms hatched from about one ounce of seed would be about Rs. 100.

7. Systematic rearing of worms was started by the sericulture section of the Department of Industries, Punjab, in 1936. Definite results are accordingly available for the last year only and are given below:--

Race or variety.	Number of days.	Number of cocoons to a pound.	Length of filament.	Denier.
1. Var-Jaune No. 45 (Univoltine).	40	380	400 to 401 yards from a cocoon.	40 to 45 d. and 90 to 110 d.
2. Cevenne-Jaune No. 13 (Univoltine).	39	250	Do. .	Do.
3. Arbonsset No. 201 Rusty Univoltine.	41	290	Do. .	Do.
4. Cevenne No. 5 White Univoltine.	37	310	Do. .	Do.
5. Kashmere C. White Univoltine.	40	460	Do. .	Do.
6. Kashmere Ascoli Univoltine.	43	526	Do. .	Do.
7. Kashmere Covenens No. 191 Univoltine.	41	436	Do. .	Do.
8. Japanese Bi-voltine White .	40	400	Do. .	Do.

8. Previously the rearers used to rear the worms on the ground. This practice is now being abandoned in favour of trays and machans. The percentage of mortality in the worms has been considerably reduced. In

some cases the rearers are supplied with hatched worms instead of seed so that the seed may not be spoilt by the new rearers.

9. Before 1937, the entire quantity of silk worms were reared from imported seed. Last year the Department started the production of cellular seed locally and about 146½ ozs. of seed were produced which were distributed to private rearers this year along with 851 ozs. of seed imported from France and Italy. During the current year the local production of cellular seed is expected to be about 500 ounces.

The production of seed is organised separately from the production of cocoons. The production of seed is being carried on at Madhopur in the Gurdaspur district where there exists an abundant supply of mulberry leaf and at Palampur in the Kangra district. At Madhopur, only rearing of worms is being done while the other operations such as microscoping examination of the moths, washing and packing are conducted at Palampur. As soon as the Palampur plantation is ready for use in about 4 years, it is proposed to organise the seed production at that place. The existing staff for the supervision of seed production consists of 1 Seed Supervisor and 6 Seed Examiners who work under the charge of the Sericulture Expert.

In 1937 20 ounces of seed imported from France were utilised in the production of seed and 146½ ounces of seed were obtained. The details of the production of seed for 1938 are given below:

17 ounces of cellular silk seed of different varieties such as Resty Arbonsset; Var-Jaune; Cevennes Jaune; Cevennes White; Bugdad White; Zelira Arbonsset; China Gold-pure; Kashmere Cevennes; Kashmere Ascoli; Kashmere Cevennes White; Kashmere Fill-de-pichi, and Japanese Bivoltine were reared at Madhopur and 9 mounds 27 seers of green cocoons were sorted out for the production of seed. Nearly 500 ounces of silk seed are expected to be obtained by the middle of August next.

	Rs. a.
1. Cost of seed: 16 ounces at Rs. 2-4 per ounce and 1 ounce at Rs. 10 per ounce	36 10
2. Leaf price	225 0
	Rs.
3. Rent of building at Madhopur for 3 months	85
Rent of building at Palampur for 4 months	120
	205 0
4. Pay of staff (the pay of Reeling Demonstrator debitable to this account)	75 0
5. Miscellaneous (coal, labour, sulphur, paper, etc.)	114 6
	— — —
Total	656 0
	— — —
Cost of production per ounce	1 5

The cost will go down in future on leaf price which is in fact the cost of leaf collection and cartage, on rents and labour charges.

10. No legislative measures have been taken by the Punjab Government to provide disease-free seed to the rearers, but the Department of Industries supplies disease-free seed imported from France and Italy and the seed produced in the Departmental grainage. The distribution of seed by the Department has given successful results.

11. The worms reared in the Punjab are only univoltine. An experiment was made during the current year on the rearing of bivoltine race. The production of multivoltine worms has not yet been attempted in the Punjab.

12. Our experience of rearing silk worms is only two years old. Experiments are being conducted with 12 different races and it is too early to say if any particular race or races have become completely acclimatized.

13. In the production of disease-free seed the following precautions are taken:—

- (1) Caterpillars are carefully selected and those which are very active in going in and coming out of the moults are separated for rearing.
- (2) In the selection of cocoons the specific features such as colour, texture, size, shape and hardness are kept in view. Cocoons which are dumb and stained are rejected.
- (3) In the selection of moths, the ugly and inactive ones, moths with under-developed wings and moths having no scales on the wings and on the abdomen are rejected.

For combating pebrine disease, over and above the points mentioned above, the pasture system in regard to production of disease free seed is encouraged.

14. There is about 40 to 50 per cent. wastage in silk worm rearing from the hatching to the mounting stage. The details are as below:—

	Per cent.
(a) Wastage on account of eggs which fail to hatch	5—10
(b) Wastage in the ant stage	10—12
(c) Wastage from diseases	18—20
(d) Wastage from other causes such as damage by rats, etc.	5—10

The undermentioned steps are taken to prevent wastage in rearing:—

- (i) Encouragement by practical demonstrations of up to date inculcating methods.
- (ii) Encouragement of rearing of worms on machans.
- (iii) Free distribution of rat poison to the rearers with full instructions for its use.
- (iv) Provision of adequate supervising staff.

15. Silk worms in the Punjab have so far been fed on mulberry leaves only. Experiment with beri and castor leaves will soon be in hand. The mulberry trees are not cultivated by the breeder of worms. He obtains his supply of leaves from isolated trees growing in the village or on payment of Rs. 8 per ounce of silk seed from trees growing on canal banks, road sides and forest reserves. A Government plantation on an area of about 15 acres is just being started at Palampur. The cost of cultivation per acre at the plantation is given below:—

	Rs. A.
1. Cost of seedlings or cuttings	Nil
2. Preparation of land and preliminary cleaning	1 8
3. Digging of 192 pits—15 feet apart	20 0
4. Cost of farm yard manure	12 0
5. Labour for planting	8 0
6. Labour for watering and general look out	24 0
Total	65 8

The recurring cost per acre will be about Rs. 50 per annum. The average yield of leaf per tree is 60 lbs. or nearly 11,520 lbs. per acre, and the average life of a mulberry tree is nearly 50 years. The quantity of leaf required to feed the worms produced from 1 ounce of seed is estimated at 1,800 lbs. which is obtained from nearly 30 trees. The total cost of the leaf to the breeder, as stated above is As. 8 per ounce of seed. The price per lb. of leaf to the breeder is therefore .05 pie.

16. (a) As stated in reply to Question No. 15 above an experimental mulberry plantation is being set up at Palampur with early and improved varieties. At Sujaipur different varieties of cuttings and seedlings have been produced and supplied to the public. The matter is now receiving increased attention and experiments will shortly be taken in hand regarding manures and grafting, etc.

(b) The indigenous mulberry is capable of yielding 2 leaf crop annually, but as only one cocoon crop is obtained, the leaf crop is also harvested once. There is no bush cultivation in the Punjab. The cost of cultivation including manure per acre and the yield of leaves in respect of tree mulberry has been given in reply to Question No. 15 above.

17. There are no private cultivators of mulberry leaves in the Punjab. The breeder of worms obtains his supplies from the mulberry trees on District Board roads, canal banks and forest reserves for which he had to pay Re. 1 per ounce of silk seed reared when sericulture industry was the concerns of the Department of Agriculture. Since the transfer of the sericulture industry to the Department of Industries the breeder has had to pay As. 8 per ounce of silk seed reared.

Mulberry is not cultivated as a crop by private agriculturists in this province and hence no comparison can be offered of the profits of mulberry cultivation and other alternative crops.

18. The table below shows the index numbers of wholesale prices of food crops as well as of cocoons and raw silk (base 1933 price=100).

Year.	Wheat.	Gram.	Maize.	Rice.	Cocoons.	Raw silk (Indian).
					Per seer.	
1934 . . .	77	72	75	72	...	114
1935 . . .	82	79	75	67	...	143
1936 . . .	84	92	100	92	...	171
1937 . . .	105	87	111	97	1 6	157
1938 . . .	...	...	...	...	1 8	157
Percentage of rise 1934-37 .	36	21	48	35	...	38

The comparative course of prices as shown in the statement indicates that the rise in the price of raw silk has exceeded the rise in food crops excepting maize. The rates of cocoons for the period 1933 to 1936 are not available. The prices are now showing an upward tendency.

19. The Department of Industries has established a mulberry nursery at Sujaipur which is supplying about 60,000 one year old plants of different varieties such as early Chinese, multicaulis and moras Alba, etc. Besides this, the Department has a mulberry plantation at Kot Naina covering an area of about 5 acres and a raw plantation covering an area of about 15 acres has been started at Palampur, which will be ready for use in about 4 years. Representations have been made to the Irrigation Department to allow the Department to plant mulberry trees along canal banks. The matter is still under discussion. The rearer has to pay As. 8 per ounce of seed as leaf price for rearing silk worms while at certain places leaves are provided free by the Forest Department, District Board authorities and P. W. D., Irrigation and Buildings and Road Branches. It may be

noted that about 7 or 8 years back when Sericulture was under the Agriculture Department, the rearers had to pay at some place Re. 1 as leaf price per ounce of seed. At present the maximum rate paid as leaf price is As. 8 per ounce of seed.

20. Previously the rearer did not plant his own mulberry trees for providing food for the cocoons and obtained his supplies from isolated trees growing in the villages or on the canal banks or from the Forest reserves. The Department of Industries, Punjab, established a nursery at Sujampur for the supply of seedlings for nursery plants. In 1936-37 the nursery supplied free of cost 20,000 plants to rearers in all parts of the province. In 1937-38, 46,400 one year old plants were supplied from the Sujampur nursery to 108 zamindars in 11 districts of the province. The plants are of China early variety; Multicaulas and Moras Alba. As the nursery could not meet the increasing demand, its area was extended. With a view to the improvement of quality, root-grafting is also being tried. Nurseries are being established at various centres in the province and it is hoped to supply 100,000 plants in the next year.

The steps taken for the improvement in the rearing of silk worms have been given in reply to Question No. 14. No difficulty is experienced by the rearers in the marketing of their crop. The prices realised by the rearers were nearly 50 per cent. more than what were secured in 1935.

21. In the Punjab an average yield of 10 seers of dry cocoons was obtained this year from 1 ounce of seed which is about one half of that obtained in European countries. Yield per acre of mulberry trees could not be compared as the rearers obtain their mulberry leaves from trees growing in their own villages, or on canal banks or the trees in Forest Reserves. As stated in replies to certain other questions, only univoltine worms are reared in the Punjab and therefore no figures can be given for bivoltine or multivoltine cocoons. It may, however, be noted that the yield obtained per ounce in the current year was 30 to 40 per cent. higher than in the last year.

22. As multivoltine races have not been produced in the Punjab, no comparison can be offered with the yields of univoltine races. An experiment in the production of hybrids has been undertaken this year, and accordingly nothing can be said about the probable results before the next cocoon crop.

23. There are no large scale rearers in the Punjab. The majority of the rearers take up one or two ounces of silk seed for rearing. They do not accordingly incur any expense on rearing excepting on the purchase of seed and of mulberry leaves. The seed has been supplied to the rearers at a uniform rate of Rs. 2 per ounce during the last two years and they have to pay for mulberry leaves at the rate of As. 8 per ounce of seed. The entire labour is supplied by the rearer and his family. No appliances are used. The machans or the rearing house is made from branches of the trees on which no money is spent. The rearer incurs no other expense.

24. A statement showing the maxima and minima prices per pound of cocoons for the years 1933-34 to 1938-39 is given below:—

Year.	Maxima price		Minima price	
	per lb.		per lb.	
	As.		As.	
1933-34	.	10	.	6
1934-35	.	10	.	6
1935-36	.	10	.	6
1936-37	.	10	.	6
1937-38	.	12	.	7
1938-39	.	12	.	7

25. Previously the breeder usually sold his crop as cocoons directly it was ready irrespective of the state of the market. During the current year the majority of the breeders kept their cocoons for reeling purposes, which is principally due to the training imparted by the Department to the rearers in reeling their own cocoons. The average price of silk cocoons is about Rs. 60 per maund, while the current market rate for locally produced silk is about Rs. 11 per seer. As the reeling of silk cocoons has been introduced only from the current year, there are no figures for previous years to supply.

The average yield of silk is 25 pounds from 100 pounds of cocoons and of chasam or waste is also 25 pounds. The chasam sells at Rs. 1-1 per 100 tolas.

26. The total estimated production of dry cocoons in 1938-39 amounted to about 200 maunds. Of this about 30 maunds were purchased by the Government Filature at Amritsar for reeling by power driven machinery. The anticipated yield of the filature is $7\frac{1}{2}$ maunds of raw silk. The remaining 170 maunds of dry cocoons were reeled by private reelers on single *charkhas*. There are no multiple *charkhas* in the Punjab. The estimated yield of hand reeled raw silk is 42½ maunds.

27. The total quantity of raw silk reeled and waste produced together with the average prices obtained for each during the last two years are shown below: --

Year.	Raw silk reeled.	Waste silk produced.	Price of raw silk average per seer.	Price of waste average per seer.
	Mds.	Mds.	Rs.	Rs. a.
1937-38 . . .	32	32	13	1 1
1938-39 . . .	50	50	11	Waste of this years crop not yet brought to the market for sale. Current rate is Re. 1-1 per seer.

The average number of cocoons per pound for "Var-Jaune" univoltine is 360. Accordingly about 1,440 cocoons of this variety are required to produce one pound of raw silk. This figure relates to reeling in the Government filature. By hand reeling on *charkha*, the number of cocoons required is almost the same but the quality of the factory yarn is far superior to the hand reeled yarn.

28. The initial cost of the equipment commonly used for hand reeling is Rs. 20. The equipment can reel about 2 seers of dry cocoons per day of about 9 hours which yield approximately $\frac{1}{4}$ seer of silk yarn. The average life of the equipment is about 10 years with minor repairs.

29. (1) The total works expenditure upon reeling and works cost of reeling one pound of raw silk by a *charkha*, a Punjab Domestic basin and a filature for 1937-38, is given below. Definitive and reliable data in respect of previous years is not available.

Item of Expenditure.	Charkha.		Punjab Domestic basin plant.		Filature.	
	Works expenditure cost of equipment.	Working cost.	Works expenditure cost of equipment.	Working cost.	Works expenditure cost of equipment.	Working cost.
(1) Cost of cocoons 4 pounds.	Rs. 5	Rs. a. 3 0	Rs. 20	Rs. a. 3 0	Rs. 2,500	Rs. a. p. 3 0 0
(2) Cost of labour	labour if paid 1 4 reeling 0 6 turning	..	1 4 reeling 0 6 turning	..	1 12 0 reeling and turning by electricity.
(3) Cost of power, light and fuel .	..	0 4 fuel	..	0 4 fuel	..	0 3 0 fuel.
(4) Cost of water and soap	Nil	..	Nil	..	Nil
(5) Cost of supervision and management.	..	Nil	..	Nil	..	0 1 6
(6) Cost of repairs and maintenance.	..	negligible on one lb of silk.	..	Negligible on one pound of silk.	..	0 0 9
(7) Selling expenses	Nil	..	Nil	..	Nil
(8) Other expenses	Nil	..	Nil	..	0 0 6
Total .	..	4 14	..	4 14	..	4 1 9

30. The Punjab Government filature is a small demonstration plant. It is difficult to compare its working cost with those of commercial filatures running in foreign countries, but it is believed that the Indian plant compares favourably with its competitors in respect of its efficiency. It may, however, be noted that the working costs for instance in respect of labour which is comparatively insufficient and charges for power are higher in India than in foreign countries.

31. In the Punjab we have set up a small demonstration plant of 5 basins. Owing, however, to the small quantity of cocoon crop, it has not been found possible to run the plant for more than 5 months in the year. The plant just pays its way. The minimum limit of 200 basins for an economical unit appears to be high. A unit of 60 basins at the existing prices for cocoons and silk is expected to give a yield of 10 to 12 per cent. on the capital investment.

32. The maximum capacity of the Government filature—5 basins—is 20 pounds of cocoons per day. The yield obtained is 5 pounds of raw silk and 5 pounds of silk waste. As stated in reply to other questions, adequate supplies of cocoons to run the plant throughout the year are not yet available in the province.

33. The Sericulture Industry was in a moribund condition in 1933-34. About 100 ounces of silk seed used to be distributed among rearers. In 1938, the number of rearers was 598. About half this number do the reeling themselves. There are no private persons engaged in grainage operations in the Punjab, but it is under contemplation to encourage private persons in this work.

34. The staff of the Government filature at Amritsar is as under:—

- 1 Reeling Demonstrator at Rs. 75—5—100.
- 1 Twister at Rs. 25—1—30.
- 5 Spinners on daily wages at As. 12 per diam.
- 2 Cookers on daily wages at As. 4 per diam.
- 1 Dresser on daily wages at As. 4 per diam.
- 1 Fireman on daily wages at As. 10 per diam.
- 1 Mechanic on daily wages at As. 10 per diam.

The entire staff is skilled. The spinners have so far been imported from Kashmir. The rest of the staff is locally trained. Excepting the spinners, the rest of the trained labour is available in adequate supply. The period usually required for untrained labour to acquire the minimum skill for various sericultural operations is as below:—

Reeling or spinning	3 months.
Twisting	3 „
Cooking	15 days.
Dressing	15 „

35. (1) The present rates of daily wages paid to reelers are as below:—

	Per diem.
	As.
(a) With charkha	10
(b) With Punjab Domestic plant	10
(c) In a filature	12

(2) The efficiency of Punjab reelers is estimated to be about 15 per cent. lower than that of the Kashmere reelers and about 35 per cent. lower than that of reelers in foreign countries.

(3) A class of about 12 students mostly matriculates was started at Madhopur from 1st February last for practical training in Sericulture operations including silk worm rearing, grainage and reeling. The pupils have so far completed training in rearing and grainage operations and will shortly be brought to the Filature at Amritsar for training in reeling. Practical demonstrations are arranged periodically in villages with a view to train the rearers and reelers in modern methods of rearing and reeling operations. Demonstrations in Sericultural operations including reeling, warping and twisting were given for a period of about 8 weeks at the All-India Exhibition of Arts and Industries, Punjab, held at Lahore in December-January last, which stimulated considerable interest in the industry.

36. The total cost of the machinery installed in the Government Demonstration Filature and Silk Throwing Factory, Amritsar, is Rs. 5,846. The plant consists of 5 Mysore reeling basins, one re-winding machine, one twisting machine and skeining machine. The plant was installed about 2½ years back. Allowing for a depreciation at the rate of 6½ per cent. per annum and considering the life of the plant to be about 15 years the present block value of the machinery is about Rs. 4,925.

The plant is located in a rented building, for which rental is Rs. 60 per mensem. There are accordingly no amounts to take into consideration as to (a), (b) and (c). There are no other assets worth mentioning.

37. The estimated present day cost for erecting a filature having the same capacity as of the Government Filature given in reply to Question No. 36 above, would be as under:—

- (1) Buildings—The floor area required for the plant is 80 feet by 30 feet = 2,400 square feet. The cost of the land will depend upon the locality. The cost of building will be about Rs. 2 per square foot.
- (2) No quotations for plant and machinery have been invited recently and accordingly no estimate of the present day prices can be given.
- (3) There is no appreciable difference in the wages of labour and other costs as compared with 1936.

38. The building of the Government Filature is rented. The plant of the filature is a demonstration training model and hence no amounts have been written off as depreciation charges. The last part of the question does not arise in the case of a Government Demonstration plant.

39. The working capital required for a filature of the capacity of the Government Filature at Amritsar is estimated at about Rs. 6,000 for a year of 300 working days. In this connection a reference may be made to the reply to Question No. 31 in which the economic unit of 60 basins has been suggested. The working capital required for a filature with 60 basins is estimated at Rs. 65,000.

The prevalent rate of interest on capital borrowed from private money lenders or banks against immovable security ranges from 9 to 12 per cent. The Industries Department lends money under the State Aid to Industries Act at 4 per cent. against adequate security.

40. Throwing is not done as separate business in the Punjab. A throwing plant has recently been installed in the Government Filature at Amritsar, but it has not yet started working.

41. Raw silk has not so far been twisted in the Government Filature at Amritsar. As there is no other filature in the Punjab, the information

regarding mill twisting and winding cannot be furnished. The cost of these operations by hand *charkhas* is given below:—

	Per seer.
	Rs. A.
(1) Price of raw silk	11 0
(2) Twisting and winding	0 12
(3) Boiling off	0 6

42. The silk reeled on country *charkhas* is uneven and full of nubs and knots. The Sericulture Expert has devised an improved *charkha* which produces better quality yarn. The Sericulture staff visit reeling centres to popularise the improved *charkha* and train the reelers in the production of better quality yarn.

Re-reeling on the lines and with the apparatus as employed in foreign countries is not practised in the Punjab. Re-reeling in the Punjab is done in a crude manner. The hank is put on the *Oura* (swift) and the yarn is wound on to a bobbin. In this process the major impurities and the major defects are taken out and set right.

43. A silk throwing plant has recently been set up at the Government Demonstration Filature and Silk Throwing Factory, Amritsar, but it has not yet been worked on a commercial scale and it is not possible to give any idea of the cost of re-reeling on the plant at this stage. The cost of re-reeling on hand *charkhas* is As. 6 per seer of raw silk, and the loss of weight is from 1 to 5 per cent. according to the quality of the silk.

44. The raw silk produced in the Punjab is mostly utilised in the production of *mushadi lungis* and *daryals* together with Kashmere silk which is used most extensively. The silk is re-reeled and twisted at places for the warp. About 7-8 per cent. of the Indian silk used in the Punjab is re-reeled.

45. The locally produced raw silk is used in the production of the following finished goods:—

- (i) Silk piece goods.
- (ii) Pyjama waist strings, and
- (iii) embroidery.

Some quantities have been used experimentally in hosiery and making gold bands.

46. (i) The entire quantity of raw silk produced in the province is sold locally and is used within the province in the weaving industry.

(ii) The quantity of raw silk produced during 1936-37 and 1937-38 was about 35 and 50 maunds respectively.

47. The total quantity of raw silk and waste produced in the Punjab in 1936-37 and 1937-38 was consumed locally, the former in the weaving industry and the latter in the making of tassels, etc.

The small cottage reeler brings his reeled and waste silk to the Sericulture Expert at Amritsar who introduces the reeler to the local buyer and the rate is effected against cash at the prevailing rate. The reeler cannot generally afford to wait for better prices at a later date. The production of the private reelers and that of the Government Filature is so small that no marketing difficulties are experienced and the need for special marketing facilities does not arise at this stage. The seller obtains the fair market price.

48. The local output of silk yarn in the Punjab is still very small and there are no reports of indigenous silk for this province. The establishment

of conditioning houses will certainly help to stimulate the trade by helping in the standardisation (sorting, grading, control of moisture, etc.) of qualities particularly in the finer deniers. It may be noted that as pointed out in reply to Question No. 21 of the Questionnaire for Handloom Industry the conditioning houses should be established by the Governments of the provinces or Indian states concerned to inspire confidence in the trade.

49. The following statement will show the railway freight paid by importers and consigners from Amritsar to the port and *vice versa*. There is no difference in the freight paid by importers and consigners for these goods.

Name of Port.	Description of the goods consigned or imported.	Up-country station to which consigned or imported.	Distance.	Rate per maund per mile.
			Miles.	
Bombay . . .	Real silk yarn.	Amritsar .	1,178	62 pies. (Rs. 3-13-5 per maund).
Calcutta . . .	Do. . .	Do. . .	1,180	72 pies. (Rs. 4-7-3 per maund).
Karachi . . .	Do. . .	Do. . .	787	84 pies. (Rs. 3-7-2 per maund).
Bombay . . .	Silk fabric .	Do. . .	1,178	91 pies. (Rs. 5-10-4 per maund).
Calcutta . . .	Do. . .	Do. . .	1,180	108 pies. (Rs. 6-11-0 per maund).
Karachi . . .	Do. . .	Do. . .	787	13 pies. (Rs. 5-9-2 per maund).

50. The Punjab does not export any raw silk of local production and hence the question of comparison does not arise.

51. A detailed note on this question has been given in reply to Question No. 19 of the Questionnaire for Handloom Industry and is reproduced below for facility of reference.

The silk yarn supplied by Kashmere is received duly sorted and graded according to deniers. The quantity of silk produced within the province is at present so small that the dealers do not feel it worth their while to sort or grade it and consequently pay no attention to it. It would certainly be to the advantage of the weaver if sorting and grading were introduced. It is further desirable that Indian reeling factories should properly test the yarn at all stages before issue. The uniformity in the texture of the yarn will improve the quality of the finished goods produced and will ultimately improve the demand for Indian silk piecegoods.

52. There is no agency in the Punjab which publishes regularly the wholesale prices of raw silk. The price of Punjab raw silk is generally governed by the rates for Kashmere silk, which is the most commonly used silk in this province for weaving purposes. The prices of raw silk produced in the provinces are accordingly determined by the condition of the market from time to time.

53. There is no agency to record statistics of imports of foreign silks in the Punjab. The following statement will show just approximate quantities of silk yarns imported in the Punjab together with price per pound at Amritsar, as supplied by the people in the trade:—

Year.	Countries from which imported.						
	Japan.	Price per lb. (Sonehri Ropehri).	Italy.	Price per lb. (Italy Dupion).	China through Mandalay.	Price per lb. (Lave & Maya).	Yarkand (Suchal Vatal) price per lb.
		Rs. A.		Rs. A.		Rs. A.	
1933-34 .	2 lac.	4 8	..	..	1 lac.	4 0	4 lac. Rs. 4-8.
1934-35 .	2 lac.	4 6	No im- ports.	..	1½ lac.	4 1	3 lac. Rs. 5.
1935-36 .	1½ lac.	4 4	..	..	2 lac.	4 0	2½ lac. Rs. 5.
1936-37 .	1 lac.	4 2	..	..	2 lac.	4 1	2 lac. Rs. 5-8.
1937-38 .	1 lac.	4 0	1 lac.	3 10	2½ lac.	4 2	No import.

The f.o.b. prices per lb. the port of importation freight, insurance, etc., and landing charges in respect of a few selected varieties for 1938 are given below:—

Name of country which imported and description of goods.	F. O. B. price per lb.	Port of importation.	Freight insurance, etc.	Landing charges.
	Rs. A. P.		As.	As.
Japan-Lari	2 0 0	Bombay and Karachi.	1 per lb.	1 per lb.
Mandalay	13 8 0 for one Viz* 3 13 0	Calcutta	..	6
Italy	1 12 0	Bombay and Karachi.	1	1
Yarkand	5 8 0	Through overland route.	(Consigners bring the goods themselves and sell in the market.)	

54. During the last year no foreign silk yarns suitable for weaving were imported in the Punjab. In previous years large quantities of weaving silk yarns were imported free of duty over the land frontier routes from

* One Viz is equal to 3½ lb.

Yarkand but the Yarkand trade has now entirely shifted to Russia. The silk yarns imported from China (through Mandalay), Japan and Italy are used mainly for embroidery purposes. Accordingly imported silks do not at present compete with Indian silks in the weaving industry in the Punjab markets. It may, however, be noted that real silk has been replaced by spun silk which is imported in large quantities and has very adversely affected the local Sericulture Industry. No waste silk is imported in the Punjab.

The Indian silks used in the weaving industry in the Punjab are as under:—

- (1) Kashmere silks: 28/32; 35/40; 40/45; 60/65 and 90/110 deniers.
- (2) Mysore silks: 40/45; 90/110 deniers.
- (3) Malda silks: 40/45; 90/110 deniers.
- (4) Punjab silks: 40/45; 90/110 deniers.

In view of the facts stated above the comparative data on the lines of Table LXVI, on page 130 of the Tariff Board's Report of 1933, cannot be given.

55. It is understood that the question refers to replacement of Indian silks by artificial silk and staple fibre and not to a comparison of prices or quality as artificial silk and staple yarn fabrics stand in entirely separate category from real silk goods. As has been pointed out in reply to the Questionnaire on Handloom Weaving artificial silk and staple fibre goods have replaced real silk goods to a considerable extent by virtue of their low prices.

56. No definite information is available regarding dumping of silk by Japan, China or any other country at prices below cost of production or at lower prices in India than in other markets. It may, however, be noted that certain qualities of Japanese, Chinese and Italian yarns are received in the Punjab markets at prices which are below the cost price of the Punjab silk. Three samples are enclosed herewith of silks imported in the Punjab from Japan, China and Italy whose prices range between Rs. 7-4 to Rs. 8 per seer, while the cost of production in the Punjab is above Rs. 8 per seer. It may, however, be noted that these silks are of inferior quality and are used entirely for embroidery purposes and are not suitable for weaving purposes.

57. The imported raw silk is not considered at present superior to Indian silks in colour, winding qualities, etc. The enquiries in the local markets show that the quality of imported silks has deteriorated and at the present time imported silks are mainly used for embroidery purposes and not for weaving.

58. The depreciation of the yarn has adversely affected the local production by cheapening the price of silk imported from Japan, which reduces proportionately the benefit to the reeler afforded by the protection granted to the industry.

59. Tasar, Muga and Sri silks are not produced in the Punjab. No comments are accordingly offered on this question.

60. No silk waste is imported from foreign countries in the Punjab. A small quantity of silk waste is imported from the Kashmere State. The silk waste is mainly used in making tassels for pyjama waist bands, parandas (silk woollen or cotton strings used by women in tying up their hair), etc.

61. The proportion of silk waste at present obtained at the Government Demonstration Filature and Silk Throwing Factory, Amritsar, is 25 per cent. of the weight of the cocoon reeled. There is no appreciable difference in the proportion of silk waste obtained by the charkha reeling.

62. It is true that the prosperity of the raw silk industry depends to a considerable extent upon the price of silk waste obtained as a bye-product. The present market rate for silk waste is Rs. 1-1 per seer of 80 tolas.

63. Only univoltine cocoons are produced in the Punjab. Experiments are being made with cross-breeds but nothing definite can be said about the results at this stage. It is hoped that the percentage of waste will go down as the labour gets better trained.

64. No spinning plant has been installed in the Punjab since the time of the last Tariff Board, as the amount of silk waste available is too small to justify the establishment of a spinning plant at the present stage of the development of the industry.

65. The entire plant of the Government Demonstration Filature and Silk Throwing Factory, Amritsar, is manufactured in India. No estimates have been obtained from foreign suppliers of filature equipments and hence no comparative figures can be given.

66. There is not much silk waste available in this province and the problem of its economic utilisation within the province or for export has not yet received attention. At present silk waste is mostly used as tassels for pyjama waist bands, *parandas* (silk, woollen or cotton strings used by women for tying up their hair), etc. If and when the quantity of silk waste available for the filatures becomes considerable it would be best for the country to utilise it in the production of spun silk rather than export it.

67. Silk daryai, gulbadan, *lungi* and *tchbands* (loin cloth) are exported over the land frontier routes to Baluchistan, Afghanistan and the trans-border areas. The export trade which is confined to Multan products, is very old but is now dwindling on account of the competition of cheap imitation fabrics of artificial silk and spun silk.

The merchants from Kabul and Baluchistan come down to Multan and purchase the goods against cash payments—credit being allowed in very special cases where the parties concerned trust each other implicitly. Previously six months credit was allowed to reliable parties but owing to the difficulties experienced in recoveries in cases of default business on credit has practically been stopped. It is not possible to give exact figures of exports to the transborder countries as no regular statistics are maintained, but it is estimated that goods worth about 1½ to 2 lacs are exported annually to those parts. Small quantities of silk, artificial silk and mixture goods are imported to Delhi, Bombay, Calcutta, and Nagpur mostly on agency terms.

68. The Punjab does not import any weaving silk yarns and accordingly no useful comments can be offered on the classification and Tariff valuation of imported raw silks for customs purposes. The imported silks from Japan, China and Italy are mainly used for embroidery purposes. Only a small quantity of low quality embroidery silk is produced in the Punjab and is not affected by the foreign competition. The average price of imported silks is Rs. 7-8 per seer and the competitive quality of the locally produced silk also sells at about the same rate. But as the local production is negligible no comments are offered.

69. (a) The rates of protective duty considered necessary for the sericulture industry have been given in replies to questions Nos. 24 (for raw silk) and 26 (for fabrics) of the Questionnaire for Handloom Industry with detailed reasons for the higher duties proposed.

(b) The forms in which the duties should be paid have also been indicated in the replies to the questions referred to in (a) above.

(c) In the Punjab the sericulture industry was in a moribund condition up to the end of 1935. The year 1936 was spent in preliminary survey and taking stock of the existing position. Thus the Punjab has worked under protection for only about a year and a half. The results achieved during this short period are fairly encouraging and the industry shows every sign of success. It is also true that without the benefit of protection it cannot stand on its own legs against the foreign competition. A great deal of propaganda, technical training and financial assistance are necessary to the establishment of the industry on a firm basis for which there is an adequate scope in

this province. It may be noted that this industry is eminently suited to the rural areas as a subsidiary occupation for the villagers and as a paying proposition to the weaver. It is accordingly necessary to encourage the industry for the general benefit of the agricultural classes and the weavers community. The minimum period required to place the industry on a secure footing in the Punjab would be at least 10 years. It is, therefore, recommended that the protection to the sericulture industry should be extended for a further period of 10 years and that the proceeds of the protective duty should be distributed to the provinces for the general development of the industry, with due regard to the existing and potential resources of the province concerned.

70. As has been pointed out in the replies to the Questionnaire on handloom industry the effects of the protection afforded to silk industry have resulted in stimulating the production of raw silk, while on account of the higher price for silk yarn, the production of real silk goods has actually fallen. The latter has been further accentuated by the general preference of the consumer for spun silk, artificial silk, staple fibre and mixture piece goods which are cheaper and equally attractive. The continued protection to sericulture will ultimately result in setting the sericulture industry on a secure footing and as production increases the price of real silk, other things being equal, will come down. The most important consideration for continued protection to sericulture is that it provides a lucrative subsidiary industry to people in rural areas. The production of raw silk is increasing in the Punjab and better prices are being realised for the silk produced by rearers. If the present pace of progress is maintained, and there is no apparent reason why it should not increase, the silk industry ultimately stands to benefit by the continued protection.

The increased production of silk will affect favourably the allied industries of weaving of mixture goods, silk printing trade, silk tape weaving, and embroidery. It will also make available silk for other industries such as silk thread industry, covering for insulating electric wires, etc., which will provide increased employment in silk filatures, silk throwing mills, silk finishing and marketing, etc.

71. The proportion of the cost of (1) twisted silk and (2) silk piecegoods represented by the cost of raw silk is shown below in respect of two representative qualities of piecegoods produced in the Punjab, viz., (a) Mushadi lungi and (b) Daryai:

(a) Mushadi lungi 51 yards long and 22" wide:

	Rs.	A.	P.
Cost of raw silk	3	0	9
Cost of twisted silk	3	3	6
Total	6	4	3
Sale price	7	8	0

Proportion of raw silk in total cost of material=49 per cent.

Proportion of raw silk on the sale price of the piece=43 per cent.

(b) Daryai 60 yards long and 22" wide:

	Rs.	A.	P.
Cost of raw silk	34	12	0
Cost of twisted silk	39	0	0
Total	73	12	0
Sale price	82	8	0

Proportion of raw silk in total cost of material=47 per cent.

Proportion of raw silk on the sale price of the piece=42 per cent.

72. The protection granted in 1934 has proved beneficial in stimulating interest in the production of raw silk and in providing a paying subsidiary industry to the agriculturists. It may, however, be noted that serious attempts to develop the sericulture industry were taken up after the transfer of sericulture from the Department of Agriculture to the Department of Industries after August, 1935. Sometime was lost in the preliminary survey and initial arrangements. The work has now been placed on a systematic basis, but the period of operation has been too small to enable us to base thereon any definite conclusions.

73. In its present stage of development the sericulture industry stands in need of Government organisation and assistance to place it on a firm footing, but eventually when the industry has been placed on a firmer footing protection can be gradually taken away. Coming to the steps taken by Government to improve the industry referred to in paragraphs 200 to 206 of the Board's report:—

- (i) *Improvement in technical methods.*—Detailed accounts have been given in reply to relevant questions in this questionnaire of the work done in the Punjab in regard to the extension of mulberry plantations of early and improved varieties; of the experiments made in the rearing of best yielding races of silk worms and of the improved methods of reeling silk. As stated in reply to question No. 2 the Government of India have given to the Punjab a grant of Rs. 10,000 on the advice of the Imperial Sericulture Committee for Expenditure during 1938-39, in connection with the production of disease-free seed. Research in connection with crossings, etc., is already in hand.
- (ii) *Need for legislation and financial action.*—So far, the supply of seed to the rearers has been made by the Department of Industries and there are no private producers or suppliers of silk seed in the province. Accordingly the need for legislation for the supply and use of 100 per cent. disease-free seed does not arise in the Punjab, and no financial commitments are anticipated on this account.
- (iii) *Sericulture education.*—The account of steps taken for sericultural education has been given in reply to part (3) of Question No. 35 above.
- (iv) *Improvements in marketing organisation.*—The question of marketing has been dealt with in detail in reply to Question No. 51 above.
- (v) *Conditioning Houses.*—The necessity for the establishment of Conditioning Houses has been stressed in reply to Question No. 21 of the Questionnaire for Handloom Industry and Question No. 48 of this Questionnaire. This matter needs urgent attention.
- (vi) *State in relation to the Industry: Financial Assistance.*—The funds provided for the development of sericulture industry in the Punjab by the Punjab Government and for research by the Government of India have been given in reply to Question No. 2 above.

It may also be noted in this connection that financial assistance can be provided to private rearers, and reeler under the State Aid to Industries Act in connection with which a sum of Rs. 4 lakhs has been provided in the budget this year. Several loans have already been given to weavers for the development of the weaving industry.

- (vii) *Better collection of statistics.*—This recommendation has been noted. In the Punjab a special industrial survey staff has been recently provided for a period of 3 years for the present. A

detailed industrial survey of the sericulture industry which will also give relevant statistical data will be undertaken in due course.

74. The existing protection has given the necessary stimulus to the development of Sericulture Industry in the Punjab, and there exist good prospects of its success in this province. The sub-mountainous tracts of the Punjab are pre-eminently suited to the development of this industry and the initial stages have been fairly satisfactorily sided over. The measure of success achieved during the short period of the operation of protective duties, bids fair to the rapid progress and further reductions in the cost of production, if the industry is adequately protected against foreign competition.

The existing cost of food for silk worms as stated in reply to certain other questions in this questionnaire is at present As. 8 per ounce of seed. Effective steps are being taken to extend mulberry plantations in the rearing districts and it is hoped that within the next 10 years or so abundant supply of mulberry leaves of improved varieties would be available to the rearers at considerably less costs.

Upto now we have been depending upon foreign supplies of disease-free seed and the price of the seed to the rearer is fairly high. We have successfully produced disease-free seed and within the next two or three years we hope to produce our entire supply of disease-free seed in the province at about half the price of imported seed.

The rearers are being trained in modern methods of rearing worms, and it may reasonably be expected that as they become progressively conversant with the up-to-date methods the production will improve.

In the matter of reeling, improved appliances which give better yield, are being introduced and the rearers are being systematically trained in the economic methods of reeling which would improve both the quality and quantity of the silk produced and reduce the quantity of waste.

A lead in re-reeling and twisting is being provided by the Government Filature and with the increase in the supply of raw silk private enterprise may be expected to take up this industry. The stoppage of supplies of silk yarns suitable for weaving purposes from foreign countries at the present time provides a unique opportunity for the development of the local industry and if protection to sericulture is continued the industry may well be expected to capture the Indian markets. We are being fed with rubbish, viz., spun silk, whereas pure silk from silk producing countries is being sent to America and European countries.

Answers to the General Questionnaire sericulture enquiry by The Ball Silk Weaving Co., Ltd., Ludhiana.

1-44. Not interested.

45. Raw silk is used in the manufacture of saree and shirting fabrics.

46-53. Not interested.

54. Spun silk imported is used by the handloom weavers as it is spun and makes easy and prompt result than the Indian Raw silk, which is not twisted. And the demand for this is also very poor.

55. Indian silk has no competition with the Artificial silk and staple fibre as the later two are quite different things.

56. Raw silk imported from Japan and China costs more than Indian silk, but the only attraction of imported raw silk is that these are had in proper forms, such as twisted, ready for warps and Indian silk is not available in proper form, if arrangements are made for the supply of yarns in proper state, then a very good margin can be had on the sale of Indian silk in comparison with foreign raw silks. The additional customs duty cannot encourage to the production or sale of Indian raw silk unless

the above arrangements are not made, for the supply of the yarns in proper state.

57. Imported raw silk is found superior by the weavers only in that respect that these are had in proper forms, while our Indian silk are not obtainable in the required forms.

58-63. Not interested.

64. Spun silk spinning plant is not installed since the last Tariff Board.

65-69. Not interested.

70. The present customs duty on the silk piecegoods is not sufficient due to which our handloom industry in the weaving of spun silk is totally abolished, and instead have come to the weaving of art silk and staple fibre where a sufficient protection is being enjoyed.

71. Raw silk costs Rs. 5 to Rs. 7 per lb. and the twisted silk costs Rs. 8 to Rs. 9 per lb. when a piece of raw silk with art silk flowers, size 45" x 25 yards, weighs 1 lb. 5 oz.

The cost of twisted silk and the art silk comes to Rs. 9-12 and the weaving charges comes to Rs. 6 per piece and the bleaching and dyeing charges Rs. 1 per piece. The total cost of piece including Rs. 16-12 when an imported Japanese quality being sold at Rs. 25 to 26 per piece in Bombay, in wholesale market, leaving a margin of Rs. 6 to Rs. 10 per cent. to the sellers. The sample being sent herewith. This sort of fabric is mostly made on Handlooms and few on Powerlooms.

72. We with our own experience say that it did not encourage to start weaving silk on our looms since the duty came in, and the reason was that yarn in proper form are not obtainable. Where contrary we lost all our trade in Spun silk weaving since the new imposition of As. 14 per lb., existed.

73. Not interested.

(3) *Letter No. 4761/1257-S-1, & L-38/4333-S, dated the 8th August, 1938, from the Secretary to Government, Punjab, Electricity and Industries Departments.*

Subject: QUESTIONNAIRE FOR MILLS MAINLY ENGAGED IN THE MANUFACTURE OF SILK AND ARTIFICIAL SILK GOODS.

In reply to your letter No. 639, dated the 27th June, 1938, on the subject noted above, I am directed by the Governor of the Punjab to inform you that the Questionnaire received therewith was forwarded to 25 firms engaged in the manufacture of silk and artificial silk goods in the Punjab (list enclosed) on the 10th July, 1938. No replies have been received by Government to date. Any received hereafter will be forwarded to the Board in due course.

1. Messrs. Khushi Ram Amar Nath, Lawrence Road, Amritsar.
2. Messrs. Mangoo Mal Lal Chand, Krishna Lungi Factory, Bhatti Hatti, Amritsar.
3. Messrs. Sat Nam Weaving Factory, Katra Sher Singh, Inside Hall Gate, Amritsar.
4. Lala Kanshi Ram of Messrs. Hira Woollen and Silk Mills, Ghee Mandi, Amritsar.
5. Lala Salig Ram of Messrs. Harbans Lal Chuni Lal, Grand Trunk Road, Amritsar.
6. Messrs. Badar-ud-Din Abdul Majid, Silk Weaving Factory, Inside Hathi Gate, Amritsar.
7. Messrs. Textile Manufacturing Association, Chowk Katra Ahluwalia, Amritsar.
8. Mr. Dewan Chand Mehra, Mehra Textile Mills, Jail Road, Amritsar.

9. Lala Shori Lall of Messrs. Nathu Mal Shori Lall, Guru Bazar, Amritsar.

10. Lala Kahan Chaud of Messrs. Karam Chand, Kahan Chand, Prabhu Weaving Mills, Outside Durgiana, Amritsar.

11. Messrs. Bharat Udhar Cloth Manufacturing Company, Outside Ghoe Mandi, Amritsar.

12. Lala Kidar Nath, Proprietor, Model Silk and Woollen Factory, Kaulsar, Amritsar.

13. Lala Panna Lal, Proprietor, Imperial Textile Mills, Putligarh, Amritsar.

14. Messrs. Balloo Mall Chuni Lal, Hoshiarpur.

15. Messrs. Rallia Ram Murli Lal, Bazar Nobarian, Jullundur City.

16. Messrs. Kushi Ram Thakar Dass, Ohri, Hoshiarpur.

17. Messrs. Kishan Chand Ram Saran, Basti Guzan, Jullundur City.

18. Messrs. Kanaya Mall Nanak Chand, Basti Guzan, Jullundur City.

19. Lala Gujar Mall of Messrs. Middi Mall Babu Lal, Ludhiana.

20. Rai Sahib Lala Amar Nath, Nationals, Ltd., Ludhiana.

21. Lala Banwari Lall of Messrs. Ball Silk Weaving Factory, Ludhiana.

22. Mr. Hassam-ud-Din, Secretary, Weavers Association, Ludhiana.

23. Seth Tej Bhan of Messrs. Thakar Dass Ghanam Mall, Multan City.

24. Lala Chhatta Ram of Messrs. Chhatta Ram and Sons, Multan City.

25. Mr. Piyaara Lall, Punjab Weaving Factory, Sialkot.

(4) *D. O. No. I. S. 19/15913, dated the 6th October, 1938, from the Director of Industries, Punjab, to the President, Tariff Board.*

On the 16th September you asked me *inter alia* for copies of letters from the Government of India in which they refused to entertain the request of the Punjab Government for the development of Sericulture Industry. I enclose herewith copies of the undermentioned documents: -

- (1) Copy of Government of India letter No. L-355, dated the 5th September, 1934, to the Governments of Madras, Bengal, the Punjab, Bihar and Orissa and Burma, setting forth the principal decisions of the Conference of the Imperial Sericultural Committee regarding the purposes for which the Government of India grant could be made available.
- (2) Copy of Government of India letter, dated the 10th January, 1936, to the Secretary to Government, Punjab, Electricity and Industries Department, intimating that the Punjab Government scheme for the establishment of a fully equipped Government grainage and a mulberry nursery to provide the required leaf supply and also to discover the most suitable variety of mulberry, could not be accepted by the Imperial Sericultural Committee for reasons mentioned in paragraph 12 of the minutes (copy of paragraph enclosed for facility of reference).
- (3) Copy of a note recorded by the Hon'ble Minister for Local Self Government, Punjab, then incharge of the Industries Portfolio, as a result of a talk with Mr. Clow, Secretary to the Government of India, on 4th June, 1936, regarding the decision of the Imperial Sericultural Committee in their second meeting referred to in item (2) above. The Government of India were not prepared to accept the financing of the joint Punjab and Kashmore scheme for the production of disease-free seed.

I am making enquiries on the other points mentioned by you and will shortly let you have the desired information.

MEMORANDA FOR THE CONSIDERATION OF THE IMPERIAL SERICULTURAL COMMITTEE.

GOVERNMENT OF INDIA.

Letter to the Governments of Madras, Bengal, the Punjab, Bihar and Orissa, Assam and Burma, No. 1-355, dated the 5th September, 1934.

The Government of India propose, subject to the vote of the Legislative Assembly, to distribute annually for five years sericultural grants aggregating rupees one lakh a year, for expenditure between 1st April, 1935 and 31st March, 1940, to Provinces and possibly also to Indian States for the benefit of the industry in British India. Any balance of a grant remaining unspent at the end of any financial year (except the last) during the currency of the scheme will be available for re-allotment in the ensuing year to the Province or State in which it has accrued.

2. The Government of India propose to convene as soon as possible a meeting of the Imperial Sericultural Committee which will be constituted in the manner proposed by the Sixth Industries Conference, to advise them on the distribution of the grant for the financial year 1935-36. For this purpose the Committee will require certain further information from the local Government.

The Government of India regret this necessity of calling upon the local Government for further material. It arises from their acceptance of the recommendation of the Conference as to the manner in which the money should be spent. The memoranda on Sericulture furnished by the Provinces and States for the use of the Sixth Industries Conference were a valuable and an almost essential preliminary, but cannot now, as was the original intention, form the basis of distribution of grants.

3. The principal decisions of the Conference were that—

- (1) Sericulture is a subject of all-India importance and can best be improved by treatment on all-India lines; and
- (2) The small sum at present to be provided by the Government of India should not be dissipated on a number of unconnected experiments but devoted principally to the increased production of disease-free "cellular" seed and possibly also to some extent to research upon silk-worm diseases.

These decisions, which have the full support of the Government of India, will doubtless commend themselves to the local Government as tending to the ultimate advantage of the industry throughout India. It follows from this, however, that many of the Provinces and States which participated in the consideration of sericultural development at the Conference will not, at present, be entitled to any grant.

4. The discussion on the subject at the Conference showed that at present so-called "disease-free" seed of two kinds is being distributed in India, viz., (1) cellular seed, where each laying is kept separate and not issued until the moth has been examined and found free from pebrine, and (2) seed obtained from cocoons which are believed to be disease-free. As only cellular seed can be considered to be as nearly as possible a hundred per cent. disease-free, it is important that it should be understood that the sericultural grants referred to in this letter should be utilised solely to develop the production of cellular seed and such research as may be possible in connection therewith.

5. The distribution of the grant must be made in such a way as to produce the greatest effect and it is proposed therefore to make the fullest use of any existing facilities for the production of cellular seed. On this consideration those Provinces which have no organised sericultural industry which could benefit from the provision of such seed, namely, Bombay, the United Provinces, the Central Provinces, and probably also Bihar and Orissa, would not qualify for grants. The Punjab requires cellular seed, but has no arrangements at present for its production. It therefore appears

possible that it should, if a satisfactory arrangement can be made with Kashmir State, obtain its supplies from Kashmir. The question therefore whether a part of the grant should be spent in any Indian State in order to produce "cellular" seed for British India is one on which the opinion of the Government of the Punjab is particularly required. The Government of Mysore and Kashmir are also being addressed on this question. Of the remaining British provinces, Bengal is understood to have already undertaken the capital expenditure which would enable it to expand its production of cellular seed considerably and possibly to become a self-sufficing. Assam is greatly interested in obtaining supplies of cellular seed, but has so far made no adequate provision to produce it. The question therefore arises whether it would be economical and satisfactory for Bengal to be assisted to increase its production so as to meet the initial demands of Assam. The Government of India have no adequate information as to the extent or requirements of the industry in Burma at present but it would appear that no arrangements have hitherto been made there for the production of cellular seed. In the circumstances if there is a demand for such seed in Burma it should, if possible, be supplied at the outset from outside.

6. The Government of India may therefore be supplied with such of the following information as may be easily available to the local Government:

I. If arrangements exist for the production of disease-free seed:—

- (1) The present arrangements for the production of disease-free seed within the province and the extent to which purity can be guaranteed.
- (2) If the seed cannot be guaranteed to be 100 per cent. pure what would be the extra cost of securing this standard?
- (3) What facilities exist for the extension of production of cellular seed and what would be the net cost of bringing them into full and effective operation?
- (4) What would be the approximate further cost, if any, of providing the full requirements of the province in cellular seed.
- (5) How far increased production of cellular seed would be justified by the demand for it within the province during the next five years.
- (6) The amount, nature and destination of the present export of disease-free seed to other provinces, if any.
- (7) Whether facilities exist or could be cheaply provided to produce cellular seed for export the kind and amount of such seed and the probable selling cost.
- (8) The amount, nature and source of import of cellular seed, if any, into the province at present.

II. If no arrangements exist at present for the production of disease-free seed:—

- (1) The annual total consumption of seed in the province.
- (2) The probable demand for cellular seed within the province in the next five years if provided at a suitable price and the nature of the seed required.
- (3) The approximate net cost of producing this amount of cellular seed within the province.
- (4) The extent, if any, to which cellular seed is already imported from other Provinces or States in India or from abroad, the nature, source and cost of the seed.
- (5) Whether the requirements of cellular seed could be met more economically and satisfactorily by importation or by production within the province having regard to the duration of the proposed grants and the extremely limited amount which is likely to be available to the province.

7. At the same time any information which the local Government may be able to provide to enable the Government of India to decide upon the best means of utilizing the grant available in order to secure the maximum output and use of cellular seed irrespective of the province or State which produces it will be much appreciated. It may also be borne in mind that the ultimate ideal is to prevent by law the use of any seed which is not guaranteed free from disease.

8. The Government of India would also be glad to know whether there is any research upon silk worm diseases involving small expenditure which the local Government wish to be carried out in connection with the production of cellular seed and if so its nature, approximate cost and the probable extent of its application within the province and to other provinces.

Madras.—Sericulture is dealt with by the Department of Industries in this Presidency. The Department is supplying cellular disease-free seed to silk-worm rearers to a small extent, and facilities exist for an increased production of seed so as to cover the full requirements of the Presidency. The information required by the Government of India on the several points mentioned in paragraph 6 of their letter is given in Annexure I.

2. Pehrino is a widespread disease throughout the sericultural areas of India. The hereditary source of infection is checked by the issue of disease-free cellular seed. Information is lacking as to the incidence of contamination in all the stages of worm rearing and the effect of ventilation, environment and other cognate matters. The Director of Industries proposes to conduct research in this direction and has drawn up a scheme of research estimated to cost Rs. 9,800 which will be spread over five years. Details of this expenditure are given in Annexure II. The results of the research will be useful to all provinces.

3. If the Government of India do not make a grant of the full amount required for the purpose, the scheme will be revised with reference to the funds available. The actual pay of the Government servants borne on the Provincial Establishment if deputed to work under this scheme, their leave and pensionary contributions will be debited to the grant made by the Government of India.

I have had a talk with Mr. Clow on the phone. It appears that the decision was that the Punjab was not to produce its own seed. If the Punjab was not to produce its own seed, no objection could be raised to the scheme submitted by us to the Government of India, but the production of the seed in the Punjab being practically interdicted all that we could do was to submit a scheme under which we could purchase the best seed from Kashmir, the Government of India, as appeared from Mr. Clow's talk, being prepared to make up the difference between the price demanded by Kashmir and that the Punjab is prepared to pay. In paragraph 16 at F/44, the Committee came to the conclusion that the Governments of the Punjab and the Kashmir might be asked to consider the possibility of a joint scheme which would enable disease-free seed to be supplied to the Punjab from Kashmir at a reasonable rate. The Director of Industries and Mr. Wazir, representative of the Kashmir State, took a larger view of this decision and submitted a scheme, which is at F/49-50 and in paragraph 6 thereof they recommended that "the Punjab should receive a grant of Rs. 8,000 the details of which are given in our letter No. 1501 I. & L.-36/14679, dated the 27th April, 1936. In paragraph 7, Mr. Wazir and our Director of Industries recommended a grant of Rs. 12,000 to Kashmir for extending and improving the seed production works in Kashmir. The Government of India are not prepared to accept any of these two recommendations.

(Sd.) G. C. NARANG,

4-6-36.

Copy of a letter No. I-355, dated the 10th January, 1936, from the Officiating Under Secretary to the Government of India, Department of Industries and Labour, to the Secretary to the Government of the Punjab, Electricity and Industries Department.

Subject: GRANT-IN-AID FOR THE DEVELOPMENT OF SERICULTURAL INDUSTRY.

I am directed to forward for the information of the local Government four copies of the minutes of the proceedings of the second meeting of the Imperial Sericultural Committee, which was held on 30th October, 1935, and to request that a copy may kindly be forwarded to the local Government's representative on the Committee.

2. The Government of India have accepted the recommendations of the Committee. They regret that the scheme submitted by the Government of the Punjab, could not be accepted by the Committee for the reasons mentioned in paragraph 12 of the minutes. I am, however, to draw attention to paragraph 16 of the minutes in which the Committee have suggested that the Governments of the Punjab and Kashmir might consider the possibility of the joint scheme which would enable disease-free seed to be supplied to the Punjab from Kashmir at a reasonable rate. It will be noticed from the concluding portion of paragraph 16 of the minutes that if the joint scheme appeared to the Government of India to be *prima facie* sound they would be prepared to refer the matter to the members of the Committee by correspondence so as to enable the scheme to be started during the year 1936-37.

No. 143-I. and L-36/2672, dated Lahore, the 27th January, 1936.

A copy with a copy of its enclosure is forwarded to the Director of Industries, Punjab, for information and necessary action.

By order,
(Sd.) PYARE LAL, Superintendent,
for Secretary to Government of Punjab,
Electricity and Industries Departments.

IMPERIAL SERICULTURAL COMMITTEE.

Second Meeting.

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New Schemes.
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12. *Punjab.*—The scheme as explained by the Punjab representative involved the provision of—

- (a) a fully equipped Government grainage, and
- (b) a mulberry nursery to provide the required leaf supply and also to discover the most suitable variety of mulberry.

The necessary expenditure would be Rs. 16,000 mainly to be spent on additions and alterations to the Rest House at Nagrota, equipment for the grainage and purchase of land, and the recurring expenditure would be about Rs. 2,746 on establishment.

After considerable discussion, the Punjab representative's proposal was put to the vote and failed to secure the support of any other member. The principal grounds put forward for rejecting it were:—

- (i) the statement of the expert who represented the Punjab at the first meeting that it was not necessary for the Punjab to produce its own seed;

- (ii) the possibility of Kashmir being in a position to supply the needs of the Punjab in the matter, and the impropriety of using an all-India fund to encourage provincial self-sufficiency; and
- (iii) the probability that it would cost more to produce seed in the manner suggested than to purchase it from elsewhere.

(5) *Letter No. 6552-I. and L. 38/35802, dated the 27th October, 1938, from the Secretary to Government, Punjab, Electricity and Industries Departments, Lahore.*

Subject: PROTECTION TO THE INDIAN SERICULTURAL INDUSTRY.

I am directed to forward copy of a note recorded by the Director of Industries, Punjab, on Sericulture Industry and to inform you that this Government will be prepared to consider sympathetically the proposals of the Director when they are worked out in detail in due course.

Note on the Sericulture Industry in the Punjab.

The inception of the Sericulture Industry in the Punjab, dates from the year 1836, when the cultivation of mulberry silk-worms first attracted the attention of District Officers particularly in the sub-montane tracts. A detailed account of the development of the industry in its earlier stages has been traced in the "Monograph on Silk Industry in the Punjab—1885-86" by H. C. Cookson, which was brought up-to-date in 1899 by W. M. Hailey in his "Monograph on the Silk Industry of the Punjab", a copy each of which is appended to this note. The subsequent history of the industry up to 1916 has been given by H. Maxwell-Lefroy and E. C. Ansorage in their "Report on an inquiry into the Silk Industry in India".

2. The period 1836 to 1895 is marked by "a long series of experiments made to test the feasibility of growing in the Punjab the silk that was so largely imported from Central Asia, Kashmere and Afghanistan". The first attempts to plant mulberry trees and rear worms were made in 1836 at Ambala and Ludhiana. At Ambala the trees thrived well and the worms reared were healthy, but with the departure of the officers interested in the inception of the industry at these places, interest faded and nothing further was done. In 1852 Colonel Abbot raised 56 seers of cocoons in Hoshiarpur. From 1855 to 1858 a colony of Musalman rearers continued operations at Sujampur. Operations on a small scale were conducted at Gurdaspur and Rawalpindi in 1854 and 1858 respectively. Experiments were made on a fairly large scale at Lahore from 1853 to 1856 but the results obtained were not successful. The attempts at Amritsar from 1859 to 1864 also did not produce encouraging results. The trials at Googaria (Montgomery district) in 1863 and at Shahpur in 1864 yielded fairly good crops.

The failure of these experiments have been traced to the following causes:

- "(1) Inexperienced officers started, who got experience and were transferred.
- (2) The seed used was from varied sources, often mixed, not of the right race and often diseased.
- (3) Uniformity of hatching was not secured.
- (4) The importance of rearing a single brood only, in the spring, was not realised and multivoltine seed was used in some cases".

In Kangra the industry met with some success. In 1865 Chinese and Philippine mulberry trees were planted as the local variety was found

unsuitable for worms. The cocoons produced were valued in London at Rs. 300 per maund. In 1872 Mr. Halsey commenced systematic operations at Amritsar and later at Gurdaspur. Mr. Halsey died in 1879 and his interests were taken over by Messrs. Lister and Company. For a time the industry flourished, but later it declined on account of the prevalence of pebrine disease and unhygienic and unsystematic methods of rearing. Thus after a successful spell of a few years the Kangra industry gradually died out and by 1898-99 rearing operations had completely come to an end.

3. From 1899 to 1907, Sericulture Industry was practically non-existent in the Punjab. In 1909, the Department of Agriculture produced cocoons on an experimental basis at Gurdaspur, Chhanga Manga and Lyallpur. The cocoons which were sent for reeling to Bengal were reported on favourably. Soon after Khan Bahadur Sheikh Ghulam Sadiq, a merchant of Amritsar obtained the monopoly of leaves on road-side mulberry trees from the District Board, Gurdaspur. He obtained seed from France and gave it free to the rearers and advanced some cash as well, on the stipulation that the entire crop was sold to him. He bought the crop at his own rates and reeled silk in his own filatures. Two other silk merchants of Amritsar also carried on work on the same lines along the Upper Bari Doab Canal banks. They also ran small filatures. The industry developed for some time but the conditions inherent in a monopoly of this nature were not conducive to further development. Moreover it was not considered desirable that the silk-worm rearers should continue to be exploited by the monopolists.

4. After the preliminary experiments started in 1909, the Department of Agriculture distributed 51 ounces of silk seed in 1913. The supply of silk seed increased to 472 ozs. in 1919, and to 1,762 ozs. in 1921. Till 1921 the work was done side by side by the Entomological Section, Khan Bahadur Sheikh Ghulam Sadiq and others. This necessitated the Department of Agriculture following some of the methods of these business men who were responsible for the system of selling silk seed on credit. A number of people continued to obtain large quantities of seed from the Department which they got reared under their own supervision and made good profits for some years. But under the Department's influence these profiteers gradually disappeared and the Department began to deal with the individual dealers direct.

In 1922, 2,825 ounces of silk seed were distributed to 896 rearers in 312 villages and approximately 130 maunds of dry cocoons were brought to the auction sale which fetched Rs. 29,286. From 1923 to 1930 the quantity of seed distributed varied between 1,400 and 2,010 ozs. The highest quantity of cocoons brought to the auction sale was 211 maunds in 1924 and was valued at Rs. 47,008. It may be noted that the Sericulture Industry continued to fare well till 1930 after which it began to decline. The main reason for the decline was the rapid fall in the prices of cocoons from about Rs. 250 per maund in 1922 to Rs. 150 per maund in 1924. In the succeeding years the price continued to fall with some ups and downs. It sank to the neighbourhood of about Rs. 30 per maund for inferior qualities and about Rs. 70 per maund for superior qualities in the year 1931. In 1932 the prices ranged between Rs. 50 and Rs. 80 per maund. In 1933 the quantity of cocoons brought to the auctions had fallen to 78 maunds and the prices realised varied from Rs. 50 to Rs. 60 per maund. There was no activity worth the mention in 1934 and 1935. The total quantity of seed then distributed in the year amounted to 100 ounces only.

In pursuance of the recommendations of the 6th Industries Conference in 1934, Sericulture was transferred to the Industries Department in August, 1936. The Department took up seriously the development of the industry by popularising the rearing of silk-worms, extending mulberry cultivation by the supply of seedlings and plants free of cost to the cultivators, taking up grainage operations and encouraging reeling as a cottage industry.

The Department distributed 175 ounces of silk seed in 1936, as against 100 ounces in 1935, 554 ounces in 1937 and 951 ounces in 1938 (in addition to some seed retained for seed reproduction). Rearing operations are now carried on in 11 districts, viz., Gurdaspur, Kangra, Hoshiarpur, Ludhiana, Amritsar, Lahore, Sheikhupura, Gujranwala, Rawalpindi, Campbellpur and Sialkot. The total number of rearers in 1938 was 598. It is hoped to distribute a much larger quantity of silk seed during 1939.

Before 1937 the entire quantity of silk worms were reared from imported seed. Last year the Department started the production of cellular seed locally and about 146½ ozs. of seed were produced which were distributed to private rearers along with the imported seed. During the current year the local production of cellular seed has amounted to 430 ounces.

A mulberry nursery has been established at Sujampur to supply about 60,000 one-year old plants of different varieties such as early Chinese, *multicaulis* and *moras alba*, etc., free of cost and freight paid to agriculturists, with a view to extend mulberry cultivation in silk-worm rearing areas and it is hoped to supply 100,000 plants during the next year. The Department has also a mulberry plantation at Kot Naina covering an area of about 5 acres and a new plantation covering an area of about 15 acres has been started at Pulampur. Generally the rearers have to pay 8 annas per ounce of seed reared as the leaf price. Representations have been made to the Irrigation Department to allow the department to plant mulberry trees along canal banks. The matter is still under discussion.

5. With a view to help reeler in the marketing of the cocoons produced and also to train them in reeling so that they may produce their own yarn, a Government Demonstration Filature and Silk Throwing Factory was established at Amritsar and demonstrations are arranged in rearing areas with improved types of domestic basins. As a result of these activities nearly one half of the rearers in the Punjab are already reeling their crop. A class of about 12 students mostly matriculates, was started at Madhopur from 1st February, 1938, for practical training in Sericulture operations including silk-worm rearing, grainage and reeling. The pupils will complete their training in about 9 months. An improved type of *charkha* has been devised for cottager workers which produces better quality of yarn free from neps and knots. A silk throwing plant has also recently been set up at the Government Demonstration Filature at Amritsar.

6. Sericulture industry is particularly suited for the Punjab. There is a very large consumption of silk in the province. In 1891 the Punjab was next to Burma in the quantity of raw silk consumed, and although in subsequent years this province has not retained the same position, it is still one of the biggest consumers of silk. Climatically the Punjab is quite suitable for silk-worm rearing. The sub-montane districts, the parts adjoining Kashmir and certain other areas are particularly suited for the industry. The demand for silk seed from private rearers has exceeded the supply. Requests for the supply of mulberry seedlings and plants are on the increase. Interest in reeling has been created. And the rearers and the breeders are happy at the additional income earned by them from sericultural operations. The Sericulture Industry bids fair to succeed in the Punjab, but considering its nature and the class of persons engaged therein, it cannot stand without Government assistance and organisation. In this connection Professor Maxwell-Lefroy in 1916 made the following remarks which hold good also to-day.

"The question of whether the Province is to become a silk-producing one depends entirely upon the amount of effort put into the planting of trees in suitable places, the distribution of eggs and stimulating of the people to take to the industry. There is no doubt that in large areas cocoons can be produced, and the main obstacle to development now is the lack of trees. It is necessary to settle the lines on which this development will take place: whether the Department will continue to issue seed, supervise rearing and dispose of cocoons for the rearers".

7. *Forms of Government assistance.*—Assistance from Government is required in the following forms:—

- (1) *Supply of disease-free seed.*—The first essential for the success of the sericulture industry is the supply of disease-free seed to rearers at cheap rates. The small scale rearer cannot by himself arrange to obtain the right breed of worm, free from disease at reasonable rates. Accordingly the supply of silk seed must remain in the hands of Government. The failure of the industry at earlier stages was in a large measure due to mixed breeds, incorrect races taken up for breeding and diseased seed. Till last year the entire quantity of seed was



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Gurdaspur and Jullundur districts. And it is possible to grow more castor plants in a shorter space of time than mulberry.

9. It may be mentioned that it is proposed also to introduce a system of Government-aided rearers. Some of the rearers are too poor to find money to buy silk seed and plants for silk-worm rearing. At the same time difficulty has been experienced in securing an adequate crop of cocoons to feed the Government Silk Reeling Factory throughout the year. Hence the system of aided rearers is being introduced. They will be supplied free seed, free leaves and certain rearing appliances, such as trays, etc.

(6) *Demi-official letter No. 969, dated the 14th September, 1938, from F. I. Rohintoola, Esq., President, Tariff Board, to Rai Bahadur Lala Ram Lal, P.C.S., M.B.E., Director of Industries, Punjab, Simla.*

I missed you yesterday. Probably some work prevented you from coming over this side. In addition to what is asked by me in the oral examination I would also like to have the following additional information:—

- (1) What is the life of a mulberry tree?
- (2) In how many years does it mature?
- (3) After how many years is it ready for supplying leaves for worms?
- (4) When does the recurring expenditure actually begin to function?
- (5) What is the weight of an ounce of seed in grammes?

(7) *D. O. No. I. T. 4-II/18098, dated the 4th November, 1938, from Rai Bahadur Lala Ram Lal, P.C.S., M.B.E., Director of Industries, Lahore, to F. I. Rohintoola, Esq., President, Tariff Board.*

Kindly refer to your D. O. No. 969, dated the 14th September, 1938.

I attach herewith the replies to the questions raised therein. I am sending separately the replies to the questions asked at the oral examination.

Replies to questions.

1. The life of the mulberry tree varies according to the method adopted in propagating the plants. The average life of trees grown from mulberry seeds is about sixty years while that of trees grown from cuttings is upto 40 years.

2. The trees grown from mulberry seeds mature in about 20 years, while those grown from cuttings attain maturity in about 10 years.

3. The mulberry trees are ready for supplying leaves for silkworms when 4 years old. It may be noted that the average of 25 to 30 trees, the leaves of which are required to feed worms obtained from one ounce of silk seed, refers to fully matured trees. In the case of immature trees the requisite quantity of leaves will be obtainable from nearly 35 trees.

4. The recurring expenditure on a mulberry plantation begins to function immediately after the trees are planted as watchmen are required to look after the plants generally and to attend to the watering of plants, weeding, etc. In the first two years when the plants get set in, the recurring expenditure in a year for a farm of say 15 acres will be Rs. 885 as per details given below:—

	Rs.
Pay of four watchmen at Rs. 15 per mensem each .	720
Water rate at Rs. 11 per annum per acre . . .	165
	<hr/>
	885

When the plants are three years old (one year in the nursery and two years in the plantation) they do not stand in need of watering, and it is considered that two watchmen can look after the 15 acre plantation for the next five years till the plants are about 8 years old. The recurring expenditure during this period will thus be Rs. 360 per year. In subsequent years one watchman at Rs. 15 per mensem is considered sufficient to look after the plantation and the recurring expenditure is limited to his pay only, viz., Rs. 180 per annum.

5. The weight of the ounce of silk seed as stated by the foreign exporters of seed is 30 grammes.

(8) *Letter No. 1208, dated the 2nd November, 1938, from the Tariff Board, to the Director of Industries, Punjab, Lahore.*

I am directed to invite a reference to your reply to Question 7 of the General Questionnaire issued by the Board in which you gave the results obtained from each variety of worms reared during the last five years. In the last column of the Table given therein you mentioned the denier as 40/45 and 90/110. In the course of the oral evidence it was pointed out by the President that this was not the denier required. What was wanted was the denier of the filament on the lines of those given in Table XVIII on page 41 of the 1933 Report of the Tariff Board. You promised to work it out and supply to the Board. I am directed to request that the necessary information may kindly be expedited.

(9) *Letter No. 18198, dated the 5th November, 1938, from the Director of Industries, Lahore.*

With reference to your letter No. 1208, dated the 2nd instant, I have the honour to give below the denier of filament obtained from each variety of worms during the last year in terms of weight in half decigrams of a length of 450 metres on the lines of those given in Table XVIII on page 41 of the 1933 Report of the Tariff Board. It may be noted that only 3 races, viz., Var-Jaune, Cevenne No. 45 and Kashmere Cevenne No. 191 are commonly reared in the Punjab while the other races have been reared only on an experimental basis:—

Race of variety.	No. of days.	No of cocoons to a lb. (green).	Length of filament.	Denier.
1. Var-Jaune No. 45 (Univoltine)	40	360	787	2.59
2. Cevenne-Jaune No. 13 (Univoltine)	39	250	760	2.4
3. Arbousset No. 201 (Rusty univoltine)	41	296	720	2.35
4. Cevenne No. 5 (White univoltine)	31	310	618	3.17
5. Kashmere C (White univoltine)	40	460	600	3.01
6. Kashmere Ascoli (Univoltine)	43	528	700	2.38
7. Kashmere Cevenne No. 191 (Univoltine)	41	436	675	2.46

(10) Letter No. 1. 1. 411/18445, dated the 13th November, 1938, from the Director of Industries, Punjab, Lahore.

In continuation of my letter No. 18198, dated the 5th instant, I have the honour to forward herewith the replies to the supplementary questions asked by the Tariff Board at my oral evidence.

There is just one more suggestion which I have to make in this connection. The importers of foreign goods who know their job, can and do always devise some method of evading the tariff schedule, so that in the result our industry suffers until the matter is next referred to the Tariff Board for investigation and advice. I would, therefore, suggest that the Tariff Board, or, failing it the Sericulture Committee, should keep a constant watch on the working of the protective duties and that, should it find that foreign importers have succeeded in evading them by introducing fabrics or yarns, not covered by the letter of the tariff schedule, it should advise the Government of India immediately to impose suitable duties on the new products coming in undue competition with our products. Unless this step is taken, the protective duties may fail to confer the intended benefits.

General Questionnaire.

14. The Board asked for further information on the undermentioned points:—

- (1) Number of worms obtained from an ounce of seed.
- (2) Percentage of mortality.
- (3) Number of double cocoons obtained.

(1) There are about 30,000 eggs in an ounce of silk seed. Of this number 5 to 10 per cent. or say 7½ per cent. fail to hatch. Thus the number of worms obtained from an ounce of seed is about 27,750.

(2) Further wastage, as pointed out in reply to this question, occurs as under:—

	Per cent.
(a) Wastage in the ant stage	10—12
(b) Wastage from disease	18—20
(c) Wastage from other causes such as damage by rats, etc.	5—10

This would give an average wastage of about 37 per cent. of the worms hatched which leaves us with about 17,482 matured worms who would spin as many cocoons. 17,482 green cocoons at the average rate of 290 green cocoons to a lb. amount to about 60 lbs. per ounce of silk seed or 20 lbs. dry cocoon.

(c) The percentage of double cocoons on the total numbers of cocoons produced is 2½.

15. The Board desired further information regarding:—

- (i) fuller details of cost of planting one acre of land with mulberry;
- (ii) quantity of leaf required to feed worms from one ounce of seed;
- (iii) whether instruction was provided to rearers in the matter of proper feeding of worms;
- (iv) process of drying green cocoons.

(i) As pointed out in the reply to this question mulberry trees are not as a rule cultivated by the breeder of worms. The actual costs incurred at the Government plantation at Palampur are given below:—

	Rs. A.
1. Cost of seedlings—192 per acre planted at distances of 15 feet apart	Nil.
Or 1 anna per seedling for purposes of theoretical calculation	12 0
2. Cost of preparing the land, cleaning of bushes, etc., one man at As. 8 per day for 3 days	1 8
3. Digging of 192 pits 3' x 3' x 3' at As. 1-8 per pit—one man digging about 5 pits a day .	20 0
4. Cost of farmyard manure at 20 seers of manure per pit; price As. 2 per maund of manure including cost of carriage .	12 0
5. Labour for planting—one man at As. 8 per day planting 12 trees daily	8 0
6. Labour for watering and general lookout—two men at about As. 6 to As. 7 per day for one month when the plants get set in	24 0
Total without cost of seedlings	65 8
Total with cost of seedlings included	77 8

In the sub-montane districts manure is carried by labourers in "*Kittas*" (wicker baskets) in loads of about 20 seers per *Kitta*. The cost of manure including the cost of carriage is 1 anna per *Kitta* or As. 2 per maund. In the plains manure is carried in *gaddas* (bullock carts). Each *gadda* contain 25 to 30 maunds of manure and costs about Rs. 2-8 to Rs. 3 per *gadda* load, or 1 anna 7-2 pies per maund.

(ii) The quantity of leaf required to feed worms from one ounce of seed is nearly 1,800 lbs. which is obtained from 25 to 30 trees. The estimate of Director of Agriculture, Punjab, given at the previous enquiry of the Board in 1933 (*vide* page 240 of the Written Evidence Sericultural Industry, Volume I) is considered an over-estimate. The comparative figures of the quantity of leaves required to feed the worms from one ounce of seed at the various stages as given by the Director of Agriculture and as at present fed are noted below:—

Stage of the worms growth.	Estimate of Director of Agriculture.	Quantity now fed.
	Lbs.	Lbs.
In first stage	10	8
In second stage	30	30
In third stage	90	100
In fourth stage	270	250
In fifth stage	2,000	1,400
Total	2,400	1,788 or about 1,800.

Detailed experiments in regard to proper amount of feed for the different varieties of worms with different varieties of leaf have not yet been conducted, but will be taken in hand shortly. Our experience has so far been confined to 2 or 3 varieties of worms as well as leaves.

(iii) Instruction is provided to the rearers in the correct method of feeding the worms. In the Punjab the rearers are instructed to give 6 feeds up to the 4th stage and 4 feeds in the 4th and 5th stages; to select leaves from white variety only, *viz.*, multicaulas; to keep the rearing houses clean and to discard yellow leaves and other foreign matter before feeding the worms. A sectional design of a typical rearing house with dimensions and instructions regarding the arrangement of trays and machines as recommended to rearers is attached.

(iv) At present green cocoons are dried by exposure to sun. The green cocoons are placed on a mat in the open in a heap and covered up with a black cloth and are exposed to the sun for 5 or 6 days. The destruction of the chrysalis by steam and drying of cocoons in the shade has not yet been taken up in the Punjab. The matter is, however, receiving attention and experiments will shortly be taken in hand with such steam kettles as are within easy reach of the small scale rearer.

SECTION OF TYPICAL REARING HOUSES WITH DIMENSIONS.

Measurement and particulars.

Inside 16' x 10' x 8'.

Size of door—One door 6' x 3½'.

Size of windows—Three windows on each side and one at the back 3' x 2'.

Height of 1st tray 1½'.

Thickness of mud walls plastered and white-washed inside and outside 1½'.

Machans are made of bamboos—3 layer of trays.

Thatched roof.

Wire gauze on windows and doors.

Floor kacha made—strong.

Machans 2½' deep.

Inside way 3' wide between 2 machans.

Coal Tar is applied to bamboo posts.

One thermometer.

Four chatuks sulphur for disinfecting.

One chatak copper sulphate for washing trays.

23. The Board asked for fuller details of the cost of producing cocoons from one ounce of seed.

It was stated in reply to this question that the rearer in the Punjab who generally rears only one ounce of seed does not incur any expense on the rearing operations except the price of seed, *viz.*, Rs. 2 per ounce and the fee of As. 8 for leaf permit, per ounce of seed reared. Even where the quantity of worms reared exceeds one ounce of seed the rearers family members supply the entire labour and the material required for making trays, machans, etc., is available free of cost on the farms. So that the rearer does not actually incur any other expenditure excepting for the price of seed and cost of leaf permits. However, working on a purely theoretical basis, the expenses to the rearer per ounce of seed reared, if

he used hired labour and paid for all material required for the rearing house, would be as under:—

	Rs.	A.	P.
1. Cost of seed (1 ounce)	2	0	0*
2. Cost of labour—			
(i) Wages for the plucking and bringing lead to the rearing house—22 maunds at As. 3 per maund	4	2	
(ii) One woman attendant for 30 days	7	8	
			11 10 0
3. Cost of food for worms—permit for removal of leaf	0	3	0
4. Cost of appliances—			
(i) Cost of trays: Rs. 2-4, which will last for 3 years	12	0	
(ii) Cost of machan material As. 12 which will last for 3 years	4	0	
(iii) Labour for making trays and machan (lasting for 3 years)	5	3	
			1 5 3
Total	15	7	3

For incubation purposes during the day they keep the seed in their inner pocket and at night they keep it in the kitchen.

29. The Board desired further elucidation of the items of expenditure on reeling given in the statement of accounts in reply to this question, and also the cost of re-reeling.

The rates of daily wages paid to the reelers have been stated as under in reply to part (1) of question No. 35:—

	Per diem.
	As.
(i) Reeler working with charka	10
(ii) Reeler working with Punjab domestic basin	10
(iii) Reeler working in a filature	12

The statement gives the account of cost of reeling in respect of 4 lbs. of cocoons. A reeler working with the charka can reel 2 lbs. of cocoons per day and accordingly the cost of reeling 4 lbs., viz., 2 days labour is Rs. 1-4, while turning of the silk obtained costs a further sum of As. 6. In the filature 4 lbs. of cocoons can be reeled in one day along with turning so that the cost of labour is As. 12 for both operations. In regard to the Punjab domestic basin the cost of labour has been worked at the

* This figure will go down to Re. 1 or Rs. 1-5 if local seed is supplied.

rate of 2 lbs. of cocoons per day, but further enquiries reveal that on an average a worker can reel nearly 3 lbs. of cocoons in a day, so that the wages for reeling and turning of 4 lbs. of cocoons will be Rs. 1-1-6 (As. 13-6 for reeling and As. 4 for turning). A revised statement showing the total works expenditure upon reeling and works cost of reeling one pound of raw silk by a charka, a Punjab domestic basin and a filature for 1937-38, is attached.

Secondly it was observed that soap was an indispensable item of working costs and should be accounted for in the statement.

It may be stated in this connection that soap is not required in the reeling process. It is used in degumming which is not an item of reeling as the reelers sell their silk as raw silk.

We have no experience of re-reeling. The throwing plant installed in the Government Filature, Aurritsar, has not yet been worked on a commercial scale.



सत्यमेव जयते

Statement showing the total works expenditure upon reeling and works cost of reeling one pound of raw silk by a charka, a Punjab domestic basin and a filature, for the year 1937-38.
Rendita 12 lbs.

Item of expenditure.	Charka.		Punjab Domestic Basin Plant.		Filature.	
	Works expenditure : cost of equipment.	Working cost.	Works expenditure : cost of equipment.	Working cost.	Works expenditure : cost of equipment.	Working cost.
	Rs.	Rs. A. P.	Rs.	Rs. A. P.	Rs.	Rs. A. P.
1. Cost of cocoons 4 lbs.	5	3 0 0	20	3 0 0	600	3 0 0
2. Cost of labour	Labour if paid 1 4 0 reeling 0 6 0 turning 0 4 0 fuel	..	1 1 6 reeling and turning. 0 4 0 fuel.	..	0 12 0 reeling and turning by electricity. 0 3 0 fuel.
3. Cost of power light and fuel	0 1 6
4. Cost of water and soap	0 0 9
5. Cost of supervision and management.	..	Negligible on one lb. of silk.	..	Negligible on 1 lb. of silk.	..	0 0 6
6. Cost of repair and maintenance.
7. Selling expenses
8. Other expenses
Total	..	4 14 0	..	4 5 6	..	4 1 9
Deduct—Value of waste	0 8 6 (25%)	..	0 6 9 (20%)	..	0 6 9 (20%)
Nett works cost	4 5 6	..	3 14 9	..	3 11 0
Reeling charges (above cost of cocoons) per pound of silk.	..	1 5 6	..	0 14 9	..	0 11 0

53. The Board desired to know if the quantities of silk yarn shown in the statement of imports given in reply to this question were expressed in terms of weight or value and further whether the silk yarn imported from Mandalay and Yarkand paid any import duty or not. The Board also desired to know whether the Mandalay and Yarkand silks imported were raw or spun.

The figures of quantities of silk shown in the statement of imports represent weight in pounds of the silk yarns imported in different years.

Further enquiries regarding silk imported from Yarkand and Mandalay made in the local market confirm the previous statement that no import duty is paid on these silks. Yarkand silk is brought into Srinagar in Kashmir over the land frontier routes where it is sorted. Import duty is paid to the Kashmir State on the quantity of silk which is retained in Kashmir for local consumption, while the rest of the quantities meant for markets outside Kashmir are allowed to leave the State under a permit. Thus the silk imported from Yarkand does not pay any import duty on entering the Punjab except the local terminal tax charged by the municipalities.

Mandalay silk is in reality Chinese silk and is imported by Chinese merchants in Mandalay from China. The Punjab importers obtain their supplies from the merchants in Mandalay and therefore pay no duty on it.

Both Yarkand and Mandalay silks are raw silks and not spun.

Handloom Industry Questionnaire.

4. The Board desired to know which of the two counts of staple fibre yarn, viz., 60/2 and 80/2 was used in larger quantities.

Yarn of 60/2 counts is mostly used in the warp and of 80/2 in the weft. It is estimated that nearly 60 per cent. of the yarn used is of 60/2 counts and the rest is of 80/2 counts.

9 & 13. The Board desired that the total handloom production of goods made from the materials mentioned in Question No. 2 and their approximate value may be given for 1932-33.

The approximate values of the total annual production of various kinds of silk and silk mixture goods at the previous enquiry of the Tariff Board (1932-33) were given in reply to question No. 9 of the "Replies to Questionnaire for the Handloom Industry" forwarded with Punjab Government letter No. 6116, dated the 1st March, 1933. The description of raw materials used in the different varieties of fabrics in respect of which statistics of production were given were stated in reply to question No. 7. Comparative figures of production in yards and value in rupees for 1932-33 and 1937-38 are given below:—

Description of raw materials.	Annual production in yards.		Value in rupees.	
	1932-33.	1937-38.	1932-33.	1937-38.
Raw silk . . .	3,000	5,000	3,000	5,000
Silk yarn . . .	520,000	1,600,000	6,50,000	15,00,000
Spun silk . . .	1,372,000	4,000,000	12,10,000	30,00,000
Artificial silk yarn .	14,000,000	56,000,000	35,00,000	1,15,00,000
Gold thread . . .	13,000 tolas.	3,600	1,60,000	45,000

The differences in the figures are explained below:—

Raw silk.—This item is negligible. The small increase in 1937-38 is due to the production of silk tie cloth which is a very recent development.

Silk yarn.—The figures of yardage in 1932-33 shown in the statement given above have been worked out as under:—

Description of cloth as given in reply to question No. 9 of 1933 evidence.	Value of pro- duction.	Value per yard, re- tail.	Value per yard, whole- sale.	Yardage (Figures in column 2 divided by figures in column No. 4).
1	2	3	4	5
	Rs.	Rs. a.	Rs. a.	
1. Gulbadan	40,000	1 12	1 8	26,667
2. Daryai real	1,20,000	1 12	1 8	80,000
Gola daryai	2,00,000	1 2	0 15	213,333
6. Lungi	70,000	1 9	1 5	53,333
Lungi Tehband	2,20,000	1 12	1 8	116,667
Total	6,50,000			520,000

The increase in 1937-38 in the figures of production as compared with 1932-33 is due to the greatly increased production of gola *daryai* which has spun silk in warp and reeled silk in weft. In 1932-33 gola *daryai* was sold at the average price of As. 15 per yard. The price of gola *daryai* is now As. 12 to As. 13 per yard and the cloth is very popular. About 50 per cent. of this *daryai* is exported to Afghanistan and Frontier districts.

Spun silk.—The figures of yardage under this head have been arrived at as under:—

Description of cloth as given in reply to question No. 9 of 1933 evidence.	Value of pro- duction.	Value per yard, retail.	Value per yard, whole- sale.	Yardage (Figures in column 2 divided by figures in column No. 4).
1	2	3	4	5
	Rs.	Rs. a.	Rs. a.	
Saris	3,00,000	1 0	0 13	369,231
Dapattas	1,10,000	1 8	1 4	88,000
Suitings and shirtings	8,00,000	1 0	0 14	914,286
Total	12,10,000			1,371,517
			rounded	1,372,000

The increase in production is primarily due to the production of mixture fabrics with cotton, staple, artificial silk and wool. This has replaced to a large extent the consumption of cotton yarn for better quality summer suitings, shirtings and saris.

Artificial silk yarn.—The people in the trade estimate the increase in the production of artificial silk and staple fibre goods in 1937-38 at 4 times the production in 1933. In the absence of any definite data, the figures under this head in the statement for 1932-33 have been taken at $\frac{1}{4}$ of the figures of 1937-38.

* *Gold thread*.—The heavy fall in gold thread fabrics has been due to the competition of cheaper materials imported from United Provinces and secondly to the change of fashion in favour of plain materials.

24. The Board observed that the cost of real silk to the weaver was worked out at Rs. 8-1-4 per lb. in reply to his question while the price per lb. in reply to question No. 41 of the General Questionnaire worked out to Rs. 6-1 per lb.

No attempt has been made in reply to question No. 41 of the General Questionnaire to work out the price of 1 lb. net of raw silk, ready for the loom. The facts stated are the price of raw silk and the cost of "twisting and winding" and "boiling off" operations. There is a loss of 25 per cent. on the weight of raw silk in degumming and no allowance has been made on this account in reply to this question.

In reply to question No. 24 of the Questionnaire for Handloom Industry, the amount of raw silk taken into consideration to obtain 1 lb. net of raw silk ready for the loom is 1 lb. 5½ ounces so as to allow for 25 per cent. loss in degumming and to this has been added the cost of re-reeling and twisting including boiling off at As. 12 per lb. So that the figure given in reply to question No. 24 represents the cost of 1 lb. net of silk ready for the loom.

24 & 26. The Board asked for further justification for the enhanced rates of import duty suggested in reply to these questions.

In proposing the enhanced rates of duties on silk yarns and silk manufactures, due consideration was given to the c.i.f. import prices of foreign goods and materials and the fair selling price of the Indian manufacturer. In the case of silk yarn the existing rate of protective duty, viz., 25 per cent. *ad valorem plus* As. 14 per lb. and of 25 per cent. *ad valorem* on silk yarn spun from waste has not proved effective in checking the increasing imports into India as will be observed from the following figures:—

Year.	Value of imports of silk raw and cocoons.
	Rs.
1934-35	57,46,302
1935-36	57,73,129
1936-37	64,41,547
1937-38	94,67,262

It has been stated in reply to question No. 24 that the cost of 1 lb. of Indian silk yarn ready for the loom to the weavers comes to Rs. 8-1-4, whereas the average price of similar imported silk yarn is Rs. 4-14 per lb. It will be observed that the cost of the Indian yarn to the weaver is 65·8 per cent. higher than the price of the imported yarn, whereas the enhanced rate of duty suggested by the Punjab, viz., 3·5 per cent. *ad valorem plus* Rs. 1-4 per lb. of silk yarn and 35 per cent. on silk yarn spun from waste silk would raise the existing duty by about 40 per cent. only. The low rate of enhancement over the existing duty was proposed keeping in view the interests of the local weavers without sacrificing the interests of the grower of silk.

Similarly in the case of silk piecegoods, in spite of the protective duty, the value of imports increased from Rs. 81,21,559 in 1936-37 to Rs. 89,92,562 in 1937-38 and of goods of silk mixed with other materials from Rs. 33,69,931 in 1936-37 to Rs. 37,89,939 in 1937-38. It is abundantly clear from these figures that the existing duties are not as effective as is desirable in the interests of the Indian silk weaving industry. No set formula was adopted in proposing the enhanced rates of duties for the various classifications of the silk manufactures mentioned in reply to question No. 26: the main consideration was to suggest a rate of duty which would render it possible for the local manufacturers to compete with the imported qualities. That,

I believe, is a matter of primary importance. It may be noted that the Punjab does not produce any qualities of silk or silk mixed with other yarns which compete directly with imported goods and it is accordingly not possible to work on a comparative data. In this connection six sample qualities which can be produced in the Punjab, have been analysed as to their technical data and cost, the samples and the analysis report of which are attached. The samples comprise qualities (i) containing 90 per cent. silk, (ii) fabrics containing more than 90 per cent. artificial silk, (iii) fabrics containing more than 50 per cent. of silk or artificial silk or both, and (iv) fabrics containing not more than 50 per cent. of silk or artificial silk or of both. It will be observed from a comparative study of columns 10 and 14 that it is not possible for the local manufacturers to compete in these lines unless the imported fabrics are charged at the enhanced rates of duties proposed in the Punjab Government memorandum. Similarly other qualities can be produced if protective duty at enhanced rates is imposed on foreign imported fabrics.



सत्यमेव जयते

Statement showing that the proposed duty is reasonable by specific examples.

1 Serial No.	2 Duty Head.	3 Name of sort.	4 Dimensions.			5 Contents.	6 C.i.f. Price.	7 Existing duty.	8 Total Price.	9 Market rate.
			Width.	Length.	Weight.					
1	Fabrics, not otherwise specified, containing more than 90 % silk.	Nanoon . .	45"	Yds. 24½	oz. 12	Silk yarn .	Rs. A. P. 5 12 0	Rs. A. P. 4 6 0	Rs. A. P. 10 2 0	Rs. A. P. 10 8 0
2	Ditto . .	Spin Boski .	27"	24½	lbs. 1½	do. .	12 0 0	8 10 0	20 10 0	21 8 0
3	Fabrics, not otherwise specified, containing more than 90% art silk (not of British manufacture).	Alam Ara .	27"	24½	2½	Art silk .	3 1 0	4 9 6	7 10 6	8 13 0
4	Ditto . .	Governot .	27"	24½	4½	do. .	3 6 6	4 9 6	8 0 0	8 12 0
5	Fabrics not otherwise specified, containing more than 50% of silk or artificial silk or of both.	Mixed Governot	26"	24½	2	Silk 60% and Art silk 40%	7 4 0	7 10 0	14 14 0	16 0 0
6	Fabrics not otherwise specified, containing not more than 50% of silk or art silk or of both.	Do. . .	27"	24½	4½	Silk 40% and Art silk 60%	16 0 0	8 0 0	24 0 0	26 0 0

Statement showing that the proposed duty is reasonable by specific examples.

1 Serial No.	2 Duty Head.	3 Name of sort.	10 Fair selling price of the cloth with the same qualifica- tions if manufac- tured in Punjab.	11 Difference between Item No. 10 and 6.	12 Proposed duty.	13 Duty cal- culated by the proposed rate.	14 Total of columns 12 and 6 (Cost by the pro- posed duty).	15 Remarks.
1	Fabrics, not otherwise specified, containing more than 60% silk.	Nanoon .	Rs. A. P. 11 9 0	Rs. A. P. 5 13 0	60% <i>ad valorem plus</i> Rs. 3 per lb.	Rs. A. P. 5 11 3	Rs. A. P. 11 7 3	
2	Ditto .	Spin Boski .	22 13 9	10 13 9	60% <i>ad valorem plus</i> Rs. 2 per lb.	10 11 3	22 11 3	People have attempted to manufacture this quality in India but the quality manufactured is inferior.
3	Fabrics, not otherwise specified, containing more than 60% art silk (not of British manu- facture).	Alam Ara .	9 15 3	6 14 3	75% <i>ad valorem</i> or 0 6 0 per sq. yd. whichever is higher.	6 14 9	9 15 9	Qualities manufactured in India are not equal to imported qualities.
4	Ditto .	Governot .	10 11 3	7 4 9	Ditto .	6 14 9	10 5 3	
5	Fabrics, not otherwise specified, containing more than 50% of silk, or artificial silk or of both.	Mixed Governot	19 2 3	11 14 3	75% <i>ad valorem plus</i> Rs. 3 per lb.	11 7 0	18 11 0	
6	Fabrics, not otherwise specified, containing not more than 50% of silk or art silk or of both.	Do. .	28 9 3	12 9 3	75% <i>ad valorem</i> or Rs. 2-8 per lb. whichever is higher.	12 0 3	28 0 0	

71. The Board desired that a note be submitted regarding effective protection for the silk handkerchiefs industry.

A few years back the silk weavers of Multan used to produce pure silk handkerchiefs with designed borders in small quantities principally to meet the local demand and the small export demand for the North-West Frontier Province and other frontier districts. Since the last three or four years the production of silk handkerchiefs has been entirely given up in consequence of the keen competition of cheap imported silk and artificial silk handkerchiefs, and at present no handloom weaver or any factory owner produces silk handkerchiefs on a commercial basis in the Punjab. A small quantity is occasionally produced to order only. The data in respect of the most common variety produced on handlooms is given below.—

Size of the handkerchief 22" x 22"—		Rs. A. P.
Cost of raw material	.	0 5 9
Cost of twisted silk	.	0 6 0
Total	.	0 11 9
Sale price	.	1 4 0
		Per cent.
Proportion of raw silk in total cost of material	.	49.4
Proportion of raw silk on the sale price of the piece	.	28.7

The local manufacturers of silk piecegoods who have been consulted are of the opinion that as the right quality of fine yarn suitable for the manufacture of handkerchiefs is not available, the chances of competing with the imported handkerchiefs are not bright. The Indian silk yarns usually available in the market are not suitable for the production of handkerchiefs and modern machinery for making cross border designs has not yet been imported. Should, however, the duty on silk handkerchiefs be increased by a reasonable measures,—(say it is put at 60 per cent. *ad valorem* plus Rs. 3 per lb. or equivalent per dozen) the manufacture of handkerchiefs will be taken up; suitable yarn will become available and people will invest money in the requisite machinery.

(11) *Letter No. I. I. 4/1/365-C., dated Camp, the 16th November, 1938, from the Director of Industries, Punjab, to the Secretary, Tariff Board.*

In continuation of my letter No. I. I. 4/1/18445, dated the 13th instant, I have the honour to state that at my oral evidence the Tariff Board desired me to obtain a detailed note on question No. 29 of the Questionnaire for Local Governments concerning Handloom Industry and to obtain from the Director of Agriculture, Punjab, information on the undermentioned points mentioned in the written evidence of that officer tendered to the Tariff Board in 1933:—

- (1) Proportion of waste to raw silk.
- (2) Number of mulberry plants grown in an acre of land.

2. I enclose herewith "a copy of a detailed note" forwarded by the Registrar, Co-operative Societies, in reply to question No. 29 of the Questionnaire for Handloom weaving referred to above.

In reply to my enquiries, referred to the Director of Agriculture, that office has noted as under:—

- (1) "As regards the figure of yield of waste silk as compared to the raw silk produced, the ratio of raw silk produced to the waste silk obtained works out at 4.4 to 1 by weight on an average

and not 6:1 as previously stated. It was clearly stated in reply to question No. 21 that the information could not be vouchsafed as very accurate."

- (2) "The number of 2,000 mulberry plants grown per acre as given by me has unfortunately conveyed a wrong impression. The figure was for 2 to 3 years old healthy plants which could be grown in a one acre mulberry nursery for subsequent transplanting for plantation purposes. The number of full grown mulberry trees for the supply of leaf to the worms, planted 15 feet apart, which an area of one acre would contain, will be about 192 as estimated by you."

A copy of a detailed note.

The Co-operative Industrial Societies arrange—

- (1) Technical and business education for their members.
- (2) Keeping of complete and up-to-date accounts of their transactions.
- (3) Audit of their accounts.
- (4) Work and business for their members where they themselves are enable to secure.
- (5) Co-operative purchase of raw material and implements for their industrial requirements.
- (6) Sale of their finished goods.
- (7) Advertisement of their wares and goods by participation in shows, opening show rooms and sale depôts.
- (8) Funds on the joint responsibility of members for the expansion and development of their business.

Advances are generally made in kind. They are recovered on the completion of a transaction. When and if members are unable to dispose of their finished products due to dull market and like to wait for better prices the societies accept the goods-in-deposit and arrange more advances (i) in kind to carry on their work, (ii) in cash to meet their other real needs to 75 per cent. of the value of their goods-in-deposit.

- (9) Collection of compulsory deposits from members to be availed of for sickness, education of children and other necessary functions.
- (10) Collection of shares from members to free them from incurring outside liability and enable them in meeting their industrial requirements from their own funds

18. Government of Bombay.

- (1) D. O. letter No. I. A. 66—7581, dated the 18th June, 1933, from M. E. Haskell, Esq., Industrial Engineer, Bombay, to F. I. Rahimtoola, Esq., President, Tariff Board.

I send herewith lists of silk mills and artificial silk mills as requested by you to Mr. Advani.

List of Silk Weaving Mills.

1. Indianese Silk Mills, Colaba, Bombay.
2. Bombay Silk Mills, Colaba, Bombay.
3. Chhloi Silk Mills, Parel Road, Parel, Bombay (manufacture both silk and artificial silk cloths).
4. Sussoon & Alliance Mills Co., Ltd., Victoria Road, Mazagaon, Bombay (manufacture both silk and artificial silk cloths).

List of Artificial Silk Weaving Mills.

1. Chhoi Silk Mills, Parel Road, Parel, Bombay.
2. Sassoon & Alliance Mills Co., Ltd., Victoria Road, Mazagaon, Bombay.
3. Bharat Silk Mills, Framji Petit Mills Compound, Mazagaon, Bombay.
4. Bipin Silk Mills Co., Ltd., Old Kastoorchand Mills Compound, 12, Dadar Road, Dadar, Bombay.
5. The New Mahalaxmi Silk Mills, Ltd., Mathradas Mills Compound, Delisle Road, Lower Parel, Bombay.
6. Panalal Silk Mills, Atlas Mill Compound, Reay Road, Mazagaon, Bombay.

(2) *Letter No. I. A. 66/7771, dated the 22nd June, 1938, from the Director of Industries, Bombay.*

I have the honour to state that under para. 3 of their Endorsement No. 9483-II-D, dated the 18th May, 1938, Government of Bombay in the General Department, desired me to send copies of the Questionnaire to representatives of handloom industry for reply to you direct. On enquiries made, I understand that the parties as per list enclosed may respond to the same being interested in the development of handloom industry. I have accordingly sent a copy of your questionnaire—Sericulture Enquiry (Handloom Industry) to each of the parties and advised them to send their reply direct to you in six copies.

Parties to whom the Tariff Board Questionnaire is sent.

1. Nagappa B. Bet, Esquire, President, Sholapur Handloom Weavers' Association, Vyankatesh Building, Guriwarpet, Sholapur.
2. Mohamed Umer Rajjah, President, Momin Weavers' Association, Madanpura, P. O. Byculia, Bombay.
3. Dr. Amirchand Chaganlal Shah, Garden Weaving Factory, Rampura Tonki, Surat.
4. Seth Kaikhusru Joshi, Turkuvad, Surat.
5. Kristappa Sapre of Hale, Hubli.
6. Ishwarappa Panji of Old Hubli, Hubli.
7. Honmantsa V. Gangli, Mangalwar Peth, Sholapur.
8. Bhogilal Bhulakkidas Shah, Jain Co-operative Housing Society, Ltd., Ahmedabad.
9. Chagandas Dulabdas Patni, Hundiwalla Lane, Yeola.
10. Harbhagat Shrikisand Marwadi, Near Shul Building, Yeola.
11. Ramchandra Gyanuji Sangale, Mith Ganj, Poona City.
12. S. B. Antakar, Esquire, 1725, Shukrawar Peth, Poona City.

(3) *Letter No. 632, dated the 27th June, 1938, from the Tariff Board to the Secretary to the Government of Bombay, General Department, Bombay.*

I am directed to forward ten copies of a questionnaire intended for mills mainly engaged in the manufacture of silk and artificial silk goods. It is not intended for cotton mills or other concerns which turn out products containing only a small proportion of silk or artificial silk. I am to request that copies be forwarded to any such concerns that exist

in your Province. Copies of the questionnaire have already been distributed to 50 mills in the Bombay Presidency, of which a list has been obtained from the Director of Industries and the Chhoi Silk Mills Co., Ltd. The Board will be grateful if replies to the questionnaire are sent not later than July the 20th, 1938.

(4) *Letter No. I. A. 66/8532, dated the 7th July, 1938, from the Director of Industries, Bombay.*

With reference to your letter No. 639, dated the 27th June, 1938, addressed to the Secretary to Government, General Department, Bombay and forwarded with the questionnaire to this Department for disposal I have to state that the Mills as per lists herein are furnished with a copy of the questionnaire and requested to send in their reply direct to you by 20th July, 1938.

List of Silk Weaving Mills.

1. Indianese Silk Mills, Colaba, Bombay.
2. Bombay Silk Mills, Colaba, Bombay.
3. Chhoi Silk Mills, Parel Road, Parel, Bombay. (Manufacture both silk and artificial silk cloth-).
4. Sassoon and Alliance Mills Co., Ltd., Victoria Road, Mazagaon, Bombay (manufacture both silk and artificial silk cloths).

List of Artificial Silk Weaving Mills.

1. Chhoi Silk Mills, Parel Road, Parel, Bombay.
2. Sassoon and Alliance Mills Co., Ltd., Victoria Road, Mazagaon, Bombay.
3. Bharat Silk Mills, Framji Petit Mills Compound, Mazagaon, Bombay.
4. Bipin Silk Mills Co., Ltd., Old Kastoorchand Mills Compound, 12, Dadar Road, Dadar, Bombay.
5. The New Mahalaxmi Silk Mills, Ltd., Mathradas Mills Compound, Delisle Road, Lower Parel, Bombay.
6. Pandalar Silk Mills, Atlas Mill Compound, Reay Road, Mazagaon, Bombay.

(5) *Letter No. 9483-II-D, dated the 21st July, 1938, from the Secretary to the Government of Bombay, General Department, Poona.*

Industry—Sericultural—Protection to—Enquiry of Tariff Board.

In reply to your letters Nos. 510 and 541, dated the 14th May, 1938, and 24th May, 1938, respectively, I am directed to forward herewith one original and six spare copies of the replies to the questionnaire on Handloom Industry issued by the Tariff Board. As regards the questionnaire on the Sericulture Industry received with your letter No. 544, dated the 24th May, 1938, I am to state that there is at present no such industry in the Bombay Province but the Government of Bombay has recently sanctioned a scheme for carrying out a survey of the possibilities of reintroducing sericulture in the Province.

2. I am further directed to state that the Government of Bombay considers that there is a good case for enhancing suitably the present protective duty on Raw Silk in order to protect the Indian Sericulture Industry. As the enhancement of duty on Raw Silk will increase the cost of silk fabrics made on handlooms, it will be necessary also in order

to protect the handloom industry against unfair competition, to increase protective duties on all imported cloths made from raw silk, spun silk, mixtures of raw silk and art silk or staple fibre yarns, as well as yarns of art silk and staple fibre.

Replies to Questionnaire.

Subject.—TARIFF BOARD ENQUIRY HANDLOOM SILK WEAVING INDUSTRY.

	Approximate number of Handlooms.	Rs.
1. (a) (i) In weaving pure silk goods only	6,000	
(ii) In weaving both cotton and silk mixed goods (i.e., in making cotton piece goods with silk boarders)	42,000	
(iii) In weaving cotton goods only	54,502	
In weaving cotton goods mixed with Art-silk or staple fibre yarns, etc.	5,000	
Total .	1,07,502	

(b) No increase, but a decline has occurred in the number of handlooms engaged in the silk industry. This has been mainly due to the increased use of art silk and staple fibre (which are considerably cheaper) and imports of silk fabrics.

2. Both Indian and imported raw materials are used.

Raw materials are imported from the following countries and Indian Provinces through wholesale merchants by sea and rail.

Raw silk—Kashmir, Bengal, Mysore, China and Japan.

Silk yarns—From China and Japan.

Artificial silk yarn—England, France, Italy, Germany, and Japan.

Gold thread—France, Germany, Surat, Benares, Yeola, Ahmedabad, and Poona.

Prices are as under:—

Raw material.	Country or Province.	5 years ago.	Present prices. Per lb.
		Rs. A.	Rs. A.
Raw silk	Kashmere	6 0	6 12
	Mysore	6 0	5 12
	Bengal	5 8	5 8
	China	4 8	6 14
	Japan	4 12	5 13
Spun silk (foreign)	230/2	8 8	...
	210/2	5 4	5 0
	160/2	4 4	4 11
	140/2	3 14	4 11
	60/2	3 8	7 4

Rates of Artificial Silk Yarn:—(imported).

Denier.	5 years back.	Present price.
	Rs. A. P.	Rs. A. P.
	Per lb.	
150	1 1 0	0 11 6
160	1 0 0	0 12 0
180	1 0 0	...
200	0 15 9	0 12 0
250	0 15 6	0 11 6
300	0 14 6	0 11 6
450	0 14 0	0 12 3
Rates of gold thread vary according to quality .	0 14 0 to 1 8 0	0 10 0 per tola 1 4 0

3. Staple fibre yarns are not used with the real silk yarn, but separately, staple fibre yarn is rapidly taking place of real silk, and is used in borders, warps and wefts or with the artificial silk as warp. In Surat, mostly Japanese and Italian make of staple fibre yarn is used for Shirtings and Suitings. The proportion of staple yarn used in making cloth is 100 per cent. for Shirting and Suiting and 5 to 25 per cent. for other cloths such as saree border cloth, etc. Japan uses staple fibre along with Art silk and produces "Samuse" cloth, which is exported to India. These cloths are now used in place of real silk sateens of Indian handloom manufacture.

*Price of staple fibre yarn.**Anny brand—*

	Per lb.
	Rs. A. P.
80/2	1 4 6
60/2	1 0 9
40/2	0 15 0
30/2	0 14 9
Paramount—	
80/2	1 5 9
60/2	1 2 0
40/2	0 15 6
30/2	0 15 3

was not available
5 years ago

4. Yes, it is critically competitive against fine cotton and spun silk yarn due to its cheapness, lustre, and evenness of thread. It has more strength than artificial silk yarn.

Surat manufacturers and merchants of Surat City consumed about 60,000 lbs of staple fibre yarn in 1936-37. The present monthly consumption of staple fibre is stated to be about 40,000 lbs.

5. (i) Done by separate agency.

(ii) Done by the weaver.

(iii) Done by separate agency.

(iv) Done by the weaver.

6. *In Poona.*—For warp, China Kine Sivan and Manchuo and Jangipur double silk, waste silk yarn and silk yarn of 13/15 deniers.

For Weft, Japan, China, Calcutta, waste silk yarn and art-silk are used or mercorized cotton yarn for producing artistic effects on cloth.

In Central Division.—Japanese and Chinese silk yarns of 13/15, deniers, spun silk yarns 230/2, 210/2, 160/2, are used as warp, and silk yarns 14/16, 20/22 and spun silk yarn of 140/2, 120/2, are used as weft.

In Northern Division.—Japan and China Silk Yarns of 13/15, spun silk yarn 230/2, 210/2, 160/2, 140/2, 120/2 and 60/2 are used as warp and silk yarn of 14/16, spun silk yarns 140/2 and 120/2 are used as weft.

7. The conditions of the majority of the weavers are practically the same as before. The industry is to a large extent controlled by merchants or sowkars who finance the cost of raw material and wages, the latter varying according to market demands and prices of cloth. When the market demand is poor the weavers are generally sufferers, the weavers seldom get a fair deal under the present system of sowkars' financing the work of the handloom weavers.

This department has introduced several marketing associations for handloom cloth, financed from grants of the Central Government, organisation of further marketing associations and co-operative societies would assist the weavers. The possibility of limiting by legislation interest charges on loans by sowkars and fixing minimum wages payable to handloom weavers should be explored.

8. The following kinds of cloth are woven in the Bombay Presidency:—

Central Division.—Paithani, Pitamber, Dupattas, Shalus, Shela, Khans, Kad, Pheta, etc., such goods are not imported hence there is little competition from foreign imports but silk saris, Khans, Kads, Phetas are now being produced by small power looms factories which compete considerably with handlooms.

Southern Division.—Saries and Bodice cloth are mainly manufactured and on rare occasions Shirtings and Dupattas are produced.

Northern Division.—Kinkhabas, silk saris, silk dhoties, silk khans, silk suitings and shirtings, muga saris, silk lungis, waste silk coatings, and silk printed cloths.

There is however considerable competition from imported silk suitings, shirtings, lungies, and silk printed cloths.

9. It is not possible to give definite figures for values of production of silk goods and mixed silk goods but estimated figures are given for a few important centres of the Bombay Province.

Estimated Annual Turnover in Rupees during the year 1937-38.

	Silk goods.	Silk mixed goods.	Art and cotton mixed.
Bombay .	3,500	4,500	6,000
Nasik .	4,000	12,000	2,000
Yeola .	1,000,000	800,000	10,000
Poona .	450,000	300,000	250,000
Surat .	1,000,000	900,000	1,000,000
Ahmedabad	200,000	80,000	125,000

There has been a sharp decline in the annual estimated production, which is due partly to the competitions from locally made artificial silk and staple fibre cloth and mainly to imported silk and art-silk cloth.

10, 11 and 12. Details are given in Statement No. 1.

13. It is estimated that the total value of the production of silk cloth in the various Divisions are as under:—

Division	During the year 1937-38 (approximate).
	Rs.
Central Division	50,00,000
Southern Division	15,00,000
Northern Division	45,00,000
Total	110,00,000

14. In Central and Northern Divisions spun silk has been mostly used for the production of silk suitings, shirtings, lungis, sarries, dhoties, and in sari boarders.

Due to enhancement of Tariff on spun silk yarn which is mostly imported, the use of spun silk has declined considerably its place being taken by art-silk in most of the large centres of handloom weaving.

15. Through the Sowkars or merchants who obtain their silks from reelers, and supply to their weavers.

16. Practice varies in different divisions; it may be summarised as follows:—

Central Division.—Honest weavers are given credit of materials and wages, etc., up to Rs. 25 to 30 for a period of 1 to 2 weeks.

Southern Division.—Similar credits are given but for longer period of 3 to 4 weeks.

Northern Division.—Raw materials are only supplied to weavers by merchants, weavers are paid on piece wages at Surat, Ahmedabad, and Dholka. At small weaving centres, the weavers purchase silk from merchants to a limited extent.

17. The practice varies in different districts:—

Central Division.—In large weaving centres, silk merchants who are importers' agents, sell silk direct to weavers. Only in small weaving centres silk is sold through retailers. There are no brokers.

Southern Division.—Silk merchants who are importers' agents sell their silk through Sowkars to weavers. There are no brokers.

Northern Division.—Silk merchants of Surat, Ahmedabad who are agents for Bombay importers supply silk to weavers. In centres like Chikhli, Broach, Bulsar, and Dholka silk is sold to weavers through retailers. There are no brokers.

18. The quality of Indian silk compares well with that of imported silk. In better Indian silk is superior, while in strength and evenness of thread it is somewhat inferior to the Japan silk. The Indian silk yarn costs more than the imported silk yarn. The difference in price varies from Re. 1 to Rs. 1-8 per lb. of silk. Due mainly to price difference, the imported silk yarn is preferred.

19. (a) Silk yarn is sorted, graded and when required twisted, this work is only done by silk reelers. Some years back merchants, in Surat, were doing the work of silk reelers, and some merchants distributed warps for weaving to local weavers on piece wages. Now-a-days silk reelers are mostly separate from merchants.

(b) If sorting and grading is introduced by silk importers or silk producers it will result in more demand of Indian silk and would eliminate the complaints of unevenness of Indian silk yarns.

20. The system is vogue in the Bombay Province varies in different divisions as follows:—

Central Division.—The system of supplying silk to weavers and taking back the cloth which was in vogue for some years has now been discontinued owing to trade depression.

Southern Division.—Silk is supplied to weavers and cloth made by them is taken back by the Sowkars. Weavers receive only fixed wages.

Northern Division.—The system of supplying silk to weavers and taking back and the cloth is confined to Surat, Ahmedabad, and Dholka, where the weavers are paid piece work wages. At other centres this system is discontinued owing to trade depression.

In some centres there are two systems in vogue for supplying the raw materials to weavers, one is of the contract and the other is conditional.

In the contract system the period is three months within which the rates at which the raw material to be given to weaver and the rate at which the finished articles of definite specification are to be received from the weaver are fixed.

In the conditional system, the weaver is bound to purchase raw materials from the purchaser of the finished goods and is bound to present first the finished article to the merchant from whom raw materials have been purchased and if the prices offered by him be not acceptable to the weaver, the weaver is at liberty to sell his produce for a higher price, but is bound to credit the sum of the sale to his loan account as soon as the goods are sold.

21. Generally conditions are unchanged. No steps have been taken for improvements in marketing by Indian silk producers.

Regarding unit of weights, this complaint has to a large extent been remedied by silk producers; Bengal silk producers quote their rates in scores of 80 tolas, while all other Indian silk producers, viz., Kashmir and Mysore quote rates in lb., in the Bombay market the sales rate is also per lb. of silk.

22. Situation has improved to some extent. Most of the Indian silk producers have introduced re-reeling but there is still a large field for improvement. Kashmir silk now-a-days has declined somewhat in evenness. The losses in degumming are practically same in both imported and local silks.

23. The introduction of Artificial silk and staple fibre yarns has affected the market for real silk considerably. Production in real silk cloth is estimated to have declined by 30 to 50 per cent.

In Guledgud and Huhli, Khans in which three-fourths of real silk was being used are now prepared from art silk yarns.

In producing artistic designs in saries, in the body and border of the same, art silk is used instead of real silk.

The luster of the cloth was generally formerly increased by use of real silk when used as weft; now art silk is used for this purpose.

In Ahmednagar (this is a striking example), real silk weaving looms have decreased and art-silk weaving looms increase, as follows:—

Year.	No. of looms working on silk yarn.	No. of looms working on art silk yarn.	Total No. of looms.
1934-35	3,000 (approximated)	1,000	4,000
1936-37	2,000	2,000	4,000
1937-38	1,000	3,000	4,000

24. Spun silk is not locally produced on a scale which can supply the Indian market requirements, and most of the spun silk used is imported. There is no direct competition between Indian Raw Silk and Spun Silk as they differ considerably in counts.

There is practically no difference in losses by degumming imported and local silk. *The present duty is not sufficient to protect the Indian products.* In this connection duty enhancement must apply to *raw silk, yarns and fabrics* (both silk and art silk) and art silk and staple fibre yarns.

25. A statement No. 2 is attached herewith. There is no information available regarding variations in prices and rates of wages, also please refer to statement No. 1.

26. Some benefit was given to real silk industry by increase of duty on imported silks. This has been offset by increased use of staple fibre and art silk yarns.

It is suggested that duties on imported silk, goods made from real silks, art silks, and staple fibre and their yarns be increased. The question of reducing the duty on spun silk may however, be considered as only relatively small quantities of spun silk are made in India. Spun silk does not compete directly with raw silk.

27. No new factories for weaving raw silk have been established during the last 5 years on account of protection given to real silk industry. Nor any increase is noticeable in use of real silk for hand weaving industry.

On the contrary the silk weaving industry has lost ground in the market and demand has declined by 30 to 50 per cent. during the last 5 years. On the other hand cheap imported and locally manufactured products of staple fibre and art silk have covered that gap. Demand for latter products is on the increase.

28. A statement No. 2 is attached with this report.

29. The policy adopted in the Hand-weavers Co-operative Societies in the Presidency is in four stages which are shown below:

- (1) In the first instance an ordinary cash society is started with the advance obtained from such Society the weaver member is at liberty to buy his yarn from any shop that suits him.
- (2) As soon as little experience is gained, the direct wholesale purchase of yarns is undertaken by the Society. The yarn is sold for cash or on credit of 3 months to members.
- (3) When it is found that the Society has got sufficient funds, the manufactured cloth of members is accepted in the off-season when Sowkars usually buy it at a low price from weavers, and loans in form of yarns and cash enough to keep the weaver employed are advanced to members on the security of the cloth in possession of the society.
- (4) The last stage is opening of a regular shop in Bazar at which the member's cloth is sold to the public.

The following are the particulars of the Co-operative Weavers' Societies in the Bombay Province under the Registrar of Co-operative Societies:—

Number of Societies, 1935-36—43.

Number of members—2,282.

Working capital—Rs. 2,15,969.

Value of sales—Rs. 94,832.

30. The systems prevailing in different divisions are as under:—

Central Division.—The goods prepared by the weavers are sold locally. These are purchased by merchants and sent to different towns in India and also exported on a small scale to such places as Goa, Siam,

Singapore, Africa, Burma, Ceylon, Afghanistan, Europe and America. The weaver does not undergo or incur freight charges, etc., in sending his goods.

Southern Division.—Some of the manufactured goods are consumed locally. Some are sent to outside markets such as Nasik, Khandesh, Nagpur, Aurangabad, etc. The charges of the freight, etc., are borne by weavers if the goods are sent on their own responsibility for sale, but if purchased the buyer usually pays the transit charges.

Northern Division.—Some of the manufactured goods prepared by weavers are sold by merchants to different merchants in important centres in India. The articles are also exported to Goa, Siam, Singapore, Africa, Burma, Ceylon, Afghanistan, Baluchistan, Bhutan, England, Germany and America. The weaver does not incur any expenses as regards freight, etc., in sending his goods.

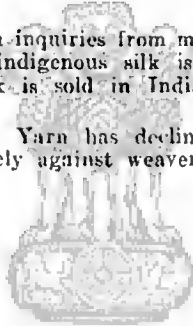
31. The demand for natural silk is decreasing owing to the increased demand for the cheaper art silk and staple fibre fabrics.

32. The present source of supply of raw silk is from Kashmir, Bengal, Mysore, China, Japan and Italy.

As regards approximate amounts of raw silk consumed in various centres, exact information is not available. But approximate figures estimated for various centres of the Province are given in the attached statement No. 3.

33. It has been found from inquiries from merchants that no appreciable turnover from imported to indigenous silk is noticeable during the last 5 years as the imported silk is sold in India below the economic price for Indian silk.

34. The use of Spun Silk Yarn has declined on account of increased duty. This has acted adversely against weavers.



सत्यमेव जयते

Answer to Question No. 28.

STATEMENT 2.

No.	Cloth.	Manu- factured at	Working expenses per piece.						Total.	Remarks.
			Cost of Raw Material.	Twisting and Winding charges.	Boiling and Dyeing charges.	Weaving charges.	Prepara- tory charges.	Other charges.		
			Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.		
1	2	3	4	5	6	7	8	9	10	11
1	Kinkhab, 30" × 5 yards .	Surat	Rs. 47 8 0	3 12 0	1 0 0	12 8 0	6 0 0	3 0 0	72 12 0	Sold at Rs. 16 a yard.
2	Silk Lungi, 46" × 2 yards .	"	2 4 0	0 6 0	0 2 0	0 6 0	0 2 0	0 6 0	3 10 0	Sold at Rs. 3.12-0
3	Paithani (Silk Sari with Gold thread Borders), 45" × 8 yards.	"	11 0 0	1 0 0	0 8 0	3 0 0	1 8 0	0 8 0	17 8 0	to Rs. 4, each. Very rarely manu- factured.
4	(Please see Sample No. 4 in Statement No. 1). (a) Pitambari, 45" × 6 yards	"	5 4 0	0 12 0	0 6 0	1 0 0	1 0 0	0 4 0	8 10 0	Very rarely manu- factured and sold for Rs. 8-12-0.
5	Silk Kad, 50" × 5 yards .	"	2 12 0	0 4 0	0 4 0	0 12 0	0 6 0	0 3 0	4 9 0	Very rarely manu- factured and sold for Rs. 4-12-0.
6	Silk Khand, 36" × 4 yards	"	2 4 0	0 3 0	0 2 0	0 6 0	0 4 0	0 2 0	3 5 0	Very rarely manu- factured and sold for Rs. 2-12-0 at loss.
7	Silk Sari, 50" × 9 yards .	"	7 8 0	0 12 0	0 6 0	1 4 0	0 8 0	0 6 0	10 12 0	Very rarely manu- factured and sold for Rs. 11.

(a) Sample, not being available, is not shown in Statement No. 1.

Answer to Question No. 32.

STATEMENT 3.

Statement showing variations in prices of yarns and approximated annual consumption of yarns at main centres of the Handloom Industry.

		1934-35.					1936-37.					
Centre.	Deniers.	Price per lb.		Dyed or Grey.	Total estimated annual consumption by Handloom.		Deniers.	Price per lb.		Dyed or Grey.	Total estimated annual consumption by Handloom.	
		Indian.	Foreign.		Indian.	Foreign.		Indian.	Foreign.			
Bombay	1	2	3	4	5	6	7	8	9	10	11	12
	120/2	Rs. a. p. ..	Rs. a. p. 3 0 0	Grey.	Lbs. ..	Lbs. ..	120/2	Rs. a. p. ..	Rs. a. p. 4 7 0	Grey.	Lbs. ..	Lbs. ..
	120/2	..	4 0 0	Dyed.	..	..	120/2	..	5 8 0	Dyed.	..	..
	140/2	..	3 14 0	Grey.	..	..	140/2	..	4 11 6	Grey.	..	..
	140/2	..	4 14 0	Dyed.	..	1,000	140/2	..	5 11 6	Dyed.	..	..
	160/2	..	4 8 0	Grey.	..	..	160/2	..	4 8 0	Grey.	..	860
	160/2	..	5 8 0	Dyed.	..	..	160/2	..	5 8 0	Dyed.	..	..
	210/2	..	4 14 0	Grey.	..	..	210/2	..	4 13 0	Grey.	..	..
	210/2	..	5 14 0	Dyed.	..	..	210/2	..	5 13 0	Dyed.	..	..
	..	..	..	..	..	..	20/22	7 4 0	4 6 0	Raw silk.	..	..

Ahmednagar .	..	..	..	..	..	13/15	9 12 0	8 4 0	Raw silk.	..	..
	20/22	7 10 0	5 2 0	Raw silk.	..	20/22	6 14 0	5 4 0	Raw silk.	..	..
	20/22	9 6 0	7 12 0	Reeled silk.	..	20/22	9 4 0	7 6 0	Reeled silk.	..	..
	20/22	11 8 0	10 0 0	Dyed.	..	20/22	10 14 0	10 0 0	Dyed.	..	..
	20/22	12 0 0	11 0 0	Dyed Reeled.	..	20/22	12 8 0	11 0 0	Dyed.	..	12,000
Sarda .	13/15	9 8 0	7 8 0	Raw silk.	..	13/15	10 8 0	8 8 0	Reeled.	..	..
	13/15	11 0 0	10 0 0	Reeled silk.	..	13/15	13 8 0	12 0 0	Dyed.	..	..
	13/15	12 0 0	11 0 0	Dyed.	..	..	..	..	..	..	..
	Quality 1	8 9 2	11 6 10	Grey.	..	Quality No. 1	9 4 7	10 0 0	Grey.	..	..
	1	10 0 0	12 13 9	Dyed.	1,700	No. 1	10 4 7	11 6 10	Dyed.	1,120	2,240
Yeola .	2	8 3 5	11 1 2	Grey.	..	No. 2	8 14 10	9 10 3	Grey.	..	..
	2	9 10 3	12 8 0	Dyed.	..	No. 2	10 5 9	11 1 2	Dyed.	..	..
	13/15	..	7 0 0	Grey.	..	13/15	..	6 12 0	Grey.	..	..
	20/22	..	5 0 0	Steamed.	..	20/22	..	4 12 0	Steamed.	..	7,000

STATEMENT 3—contd.

Statement showing variations in prices of yarns and approximated annual consumption of yarns at main centres of the Handloom Industry—contd.

Centre.	Deniers.	1934-35.				Deniers.	1936-37.					
		Price per lb.		Dyed or Grey.	Total estimated annual consumption by Handloom.		Price per lb.		Dyed or Grey.	Total estimated annual consumption by Handloom.		
		Indian.	Foreign.		Indian.		Foreign.	Indian.		Foreign.		
Surat	1	2	3	4	5	6	7	8	9	10	11	12
	20/22	Rs. a. p. 5 6 0	Rs. a. p. 4 4 0	Grey.	Lbs. ..	Lbs. ..	20/22	Rs. a. p. ..	Rs. a. p. 5 0 0	White.	Lbs. ..	Lbs. ..
	13/16	5 14 0	..	"	..	..	20/22	..	4 14 0	Yellow.	..	..
	14/16	..	4 12 0	"	..	..	13/15	..	4 12 0	White.	..	..
	20/22	7 7 0	..	"	..	..	13/15	..	4 14 0	Yellow.	..	..
	230/2	..	5 8 0	"	..	..	28/32	..	4 10 0	Yellow.	8,000	120,000
	210/2	..	5 0 0	"	10,000	150,000	210/2	..	4 12 0	Grey.	..	..
	160/2	..	4 12 0	"	..	..	160/2	..	4 8 0	Grey.	..	..
	140/2	..	3 12 0	"	..	..	120/2	..	4 0 0	Grey.	..	..
	120/2	..	3 8 0	"	..	..	140/2	..	4 12 0	Grey.	..	..
60/2	..	3 8 0	"	..	..	60/2	..	7 4 0	Grey.	..	..

STATEMENT 3—contd.

Statement showing variations in prices of yarns and approximated annual consumption of yarns at main centres of the Handloom Industry—contd.

Centre.	Deniers.	1937-38.					
		Price per lb.		Dyed or Grey.	Total estimated annual consumption by Handloom.		
		Indian.	Foreign.		Indian.	Foreign.	
	13	14	15	16	17	18	19
Bombay . . .		Ra. a. p.	Ra. a. p.		Lbs.	Lbs.	The silk yarn formerly used in Sari borders and palay is now replaced by Art-silk.
	120/2	..	4 11 0	Grey.	..	..
	120/2	..	5 11 0	Dyed.	..	..
	140/2	..	4 13 6	Grey.	..	..
	140/2	..	5 13 6	Dyed.	..	..
	160/2	..	4 14 0	Grey.	..	500	
	160/2	..	5 14 0	Dyed.	..	..
	210/2	..	5 0 0	Grey.	..	..
	210/2	..	6 0 0	Dyed.	..	..
	20/22	6 0 0	4 3 0	Raw silk	..	..
	..	..	4 1 0	Yellow.	..	..
	13/15	6 0 0	5 6 0	Raw silk White.	..	..
				Raw silk Yellow.	

STATEMENT 3—concl'd.

Statement showing variations in prices of yarns and approximated annual consumption of yarns at main centres of the Handloom Industry—concl'd.

Centre.	Deniers.	1937-38.						
		Price per lb.		Dyed or Grey.	Total estimated annual consumption by Handloom.			
		Indian.	Foreign.		Indian.	Foreign.		
	13	14	15	16	17	18	19	
	..	Rs. a. p.	Rs. a. p.	Raw silk White.	Lbs.	Lbs.		
	20/22	..	5 8 0	Raw silk.	..	..
	20/22	7 12 0	6 4 0	Raw silk.	..	..
	20/22	11 12 0	9 4 0	Reeled silk.	..	..
	20/22	13 0 0	11 8 0	Dyed silk.	..	..
	20/22	14 0 0	12 0 0	Dyed silk.	..	6,000		
	13/15	9 4 0	7 4 0	Reeled silk.	..	..
	13/15	11 8 0	10 0 0	Dyed.	..	..

As Indian silk is dearer than China silk by Rs. 1-8-0 to Rs. 2-0-0 per lb. the use of Indian silk has been reduced.

	13/15	12 0 0	10 8 0	Dyed.		
Sarda . . .	Quality No. 1.	8 9 2	10 5 9	Grey.	..	..
	No. 1.	10 0 0	11 12 7	Dyed.	..	2,000
	No. 2.	8 3 5	10 0 0	Grey.	..	..
	No. 2.	9 10 3	11 6 10	Dyed.	..	..
Yeola . . .	13/15	..	6 12 0	Grey.	..	5,000
	20/22	..	4 3 0	Steamed.	..	..
Surat . . .	20/22	5 8 0	4 4 0	Yellow.	..	..
	13/15	7 0 0	8 0 0	White.	..	..
	14/16	6 0 0	..	White.	..	..
	20/22	..	5 8 0	White.	..	..
	230/2	..	6 2 0	Grey.	5,000	75,000
	210/2	..	5 8 0	Grey.	..	..
	160/2	..	4 12 0	Grey.	..	..
	140/2	..	3 13 0	Grey.	..	..
	120/2	..	4 11 0	Grey.	..	..
	60/2	..	7 8 0	Grey.	..	..

Enclosure illustrating the comparative samples of Indian and Japanese silk manufactures and their prices, etc., which compete in the local markets.

No.	Particulars of Cloth Samples.		Origin of Manu- facture.	Width of cloth in inches.	Length of cloth per piece in yards.	Weight per piece of cloth in tolas.	Wholesale price per piece of cloth.	Retail price per yard of silk cloth.	Retail price per square yard of silk cloth.	Difference in price per square yard be- tween In- dian and Japanese silk cloths.	Which quality is cheaper.	Per- centage of cheap- ness of Japanese over Indian silk fab- rics.	
	Indian Manu- facture.	Japanese Manu- facture.											
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Silk Georgette.		Indian	50"	25	79	24 8 0	1 2 0	0 12 11½	..	..	..
	(a)	(a)								Cheaper.	Japanese	3%	
2	Silk Paj.		Indian	50"	25	64	24 0 0	1 1 6	0 12 7	0 0 4½	..	..
	(a)	(a)								Cheaper.	Japanese	16-25%	
3	Art. silk and Satin.		Real silk and Cotton Indian.	36"	25	70	24 0 0	1 1 6	0 13 5	0 2 7	..	..
	(a)	(a)								..	..	..

- (6) *Demi-official letter No. 1336, dated the 5th December, 1938, from the President, Tariff Board, to P. B. Advani, Esq., Director of Industries, Bombay.*

Will you kindly on receipt of this letter send me a statement similar to the one which you were good enough to supply to the Board on the last occasion, given on page 107 of the Board's Report, Table LVII. In one of your Appendices showing the cheapness of the Japanese cloth over Indian, you have not given us the cost of production of Indian materials to enable me to judge how the selling prices compare with the actual costs. I will feel grateful if you could send me this information as early as possible.

- (7) *Demi-official letter No. Eng. 66/1297, dated the 19th December, 1938, from P. B. Advani, Esq., Director of Industries, Bombay, to the President, Tariff Board.*

This acknowledges your demi-official No. 1336 of 5th December, 1938. The information required by the Tariff Board as per page 107 of 1933 report is not available in this office and therefore it will not be possible to give correct figures for the different classes of raw materials consumed, viz., Indian Raw Silk, Imported Raw Silk and Artificial Silk.

A supplementary statement in reply to Question No. 13 is enclosed for your information. The statement gives production figures based on Rs. 12 as conversion factor from price to lbs.

Regarding the information of cost price of Indian-made cloths as per statement supplied by this Department to the Tariff Board with this Department's 1933 written evidence, a statement is given below showing cost prices for the comparative samples of Japan and India cloths detailed in the enclosure attached to the written reply submitted by this Department during July, 1938.

	Total yards per piece.	Cost price per piece of Indian cloth.
		Rs. A.
1. Silk Georgette (India)	25	22 12
2. Silk Paj (India)	20	14 0
3. Art Silk Satin (India)	9	16 12
4. Art Silk and Cotton (India)	9	2 10
5. Art Silk Taffeta (India)	25	7 13
6. Real Silk Satin (India)	12	25 4
7. Silk Coating (India)	30	33 0
8. Silk Shirting (India)	50	40 12

Note on points raised at the time of oral evidence before the Tariff Board on 29th August, 1938.

Question No. 13.

(a) The values of production in rupees to be converted to pounds for comparing the decline in Handloom Production.

Generally a ratio of Rs. 12 per lb. be considered and accordingly figures to be as under:—

Division.	Annual sale.	Approximate estimated production in lb. (1937-38).
	Rs.	Lbs.
C. D.	50,00,000	420,000
S. D.	15,00,000	125,000
N. D.	45,00,000	360,000
Total	1,10,00,000	905,000

(b) Prices of Bengal Silk and approximate consumption in the Bombay Province.

This was in use about 8 to 9 years ago and since then it is not used much. About 9 years ago consumption of Bengal Silk was stated to be several lakhs of rupees and now it is hardly Rs. 1,00,000 annually.

Local prices of Bengal Silk during August-September were as follows:—

	Per lb.
	Rs. A.
30/32	5 0
20/22	5 4
16/18	5 4
10/12	5 8

(c) Information regarding twisted silk or raw silk sold from Mysore suspected to be imported silk from Japan, etc.

Merchants say that Mysore silk possess a greenish tint in colour and is easily detected; hence no alterations are possible but there is a "Shreeram Silk Throwing Factory" at Bangalore under ownership of Seth Ganushah Nagushah Shalger of Shalpur (Belgaum District) which purchases Japan and China Silk through re-grade twist and hank it and sell it to other provinces. It has also some powerlooms on which it produces silk cloths from the same silk. These silk yarns and cloth at many places in the markets are named as Mysore silk or Mysore silk cloth, but actually the silk used is foreign.

(d) Consumption of spun silk yarn in the Statement No. 3 and whether any Indian spun silk yarn is used.

No Indian-made spun silk yarn is used.

(e) What is "Charan Silk"?

Charan silk is quite rough and coarse silk which is cheap and available at about Rs. 1-4 to 1-8 per lb. on account of its unevenness and roughness it cannot be twisted, neither woven in ground texture because it loses its fibres during beating on the loom. It comes from China. Generally it is not used except in rare cases as weft in Sari borders beyond Sangli side; but this silk was very largely used in Karnatic particularly in villages of Belgaum District. But due to increased imports of mercerized yarn the use of Charan silk is limited to a few centres. Gokak, Rabkavi, Nipavi, Ramdurg, Pachhapur and Hukeri are the places where this silk is still used, though in very small quantities.

Another use which this silk is now finding is for embroidery purposes. High class saris are embroidered with beautiful multi-coloured designs with this silk, which being thick gives better background to the embroidered design.

(f) Staple fibre—Question A.

Regarding the consumption of 40,000 lbs. staple fibre. What is the consumption during the specific month of?

(1) Artificial Silk, (2) Raw Silk and (3) Spun Silk.

(1) Artificial silk about 8 to 10,000 lbs. in Surat.

(2) Raw silk 6,000 lbs. in Surat.

(3) Spun silk 5,000 lbs. in Surat.

(g) A rough idea of the number of dye houses in Bombay Province where silk dyeing is done.

Total number of dye houses—70.

19. Government of Assam.

- (1) *Letter No. 3839, dated the 18th July, 1938, from the Deputy Secretary to the Government of Assam, Education and Local Self-Government Department, Shillong.*

I am directed to refer to your letter No. 510, dated the 14th May, 1938, and to forward replies with six spare copies to the questionnaire on handloom industry.

2. In connection with the questionnaire forwarded with your letter No. 639, dated the 27th June, 1938, intended for mills mainly engaged in the manufacture of silk and artificial silk goods, I am to say that there are no such mills in this province. There are only small silk factories in Sualkuchi in the Kamrup district which do only silk weaving. The replies to questionnaire on Sericultural Industry forwarded with your letter No. 544, dated the 24th May, 1938, will follow.

Answers to questionnaire on Sericultural Enquiry (Handloom Industry).

1. (a) 432,000 approximately.

(i) 1,000 approximately.

(ii) 29,000

(iii) 402,000

(b) 2,000 approximately.

2. Muga and eri silk yarns are purely indigenous while pat yarn is obtainable in small quantities locally. The prices paid are as follows:--

Muga at Rs. 4 to Rs. 6 per lb.

Eri at Rs. 1-8 to Rs. 3 per lb.

Pat at Rs. 7 to Rs. 8 per lb.

The prices of imported silk are as follows:—

(1) China reeled (white) gold peacock chop No. 5 is sold at Rs. 6 per lb.

(2) Malda reeled (yellow) 4 varieties at Rs. 4 to Rs. 6½ per lb.

(3) 210s/2 Japan spun, bleached at Rs. 7 per lb.

(4) 180s/2 Italian bleached at Rs. 6 per lb.

(5) 140s/2 Italian bleached at Rs. 6 per lb.

(6) 140s/2 Japan bleached at Rs. 6-4 per lb.

(7) (a) Gold thread Surat As. 13 and As. 12 per tola.

(b) Benares As. 10 to As. 12 per tola.

These prices are more or less steady.

3. Staple fibre is not used in the manufacture of silk goods and even its use is not popular. A few weavers here and there might be using it for shirtings or in mixed cotton goods. Weavers purchase from Marwari merchants and the price of 2/100s is about Rs. 1-14 per lb. and 2/64s is Rs. 1-9 per lb.

4. If left unchecked it might be a rival to real silk. Goods of staple fibre are selling well in the market but no figures are available. It must be large.

5. The operations are performed by the weavers themselves.

6. Not much distinction is made of warp and weft threads except that warp is twisted single or double and finer than the weft, which is single

or double but not twisted and is always coarser than the warp. When spun silk is used no difference is made between warp and weft.

7. The industry is still in the hands of Marwaris almost entirely, the Marwaris cannot be ousted. They appear to be a necessity as they help the weaving population all the year round in some manner or other.

Co-operative organisation has not made any headway and people will not easily combine and until and unless business ideas are instilled into the minds of the people, no progress can be achieved.

8, 10, 11 and 12. List of typical fabrics manufactured in Assam specially by Sualkuchi weavers on handlooms. The time taken in the manufacture is for country looms. Over 5,000 fly shuttle looms and 2 dozen Jacquards have been introduced in the province and these have reduced the time by less than half.

Serial No.	Description.	Time taken in weaving by the country loom.	Kind of silk used.	Quantity of silk used.	Measurement.	Price.
						Rs. $\frac{a}{b}$.
1	(a) Pat (mulberry) Mekhala with gold lace embroidery and borders.	2 to 3 days.	China or Bengal reeled.	6 oz. silk 2 to 3 tolas lace.	2 $\frac{1}{2}$ yds. \times 35".	10 0 to 15 0
	(b) Pat (mulberry) Mekhala with Muga embroidery and borders.	Do. .	Do. .	8 oz. 2 to 3 tolas Muga.	Do. .	8 0 to 10 0
2	(a) Pat Riha gold lace border.	Do. .	Do. .	6 oz. 2 to 3 tolas lace.	4 yds. \times 22" to 27".	7 0 to 12 0
	(b) Pat Riha gold lace borders with Muga.	Do. .	Do. .	6 oz. 2 to 3 tolas Muga.	Do. .	6 0 to 10 0
3	Spun silk Mekhala with Muga borders.	Do. .	160s/2 .	10 oz.	2 $\frac{1}{2}$ yds. \times 35".	4 8
4	Spun silk Riha with Muga borders.	Do. .	Do. .	9 oz.	4 yds. \times 27"	4 8
5	Muga pieces for shirting or suiting.	6 to 7 days.	Muga .	1 $\frac{1}{2}$ lb. to 1 $\frac{1}{2}$ lbs.	10 $\frac{1}{2}$ yds. to 12 yds. \times 33" to 36".	12 0 to 30 0
6	Muga pat pieces .	Do. .	Muga pat	Do. .	Do. .	20 0 to 24 0
7	(a) Muga turban (with red cotton face borders).	3 to 4 days.	Muga .	5 oz	6 $\frac{1}{2}$ yds. \times 20".	3 0 to 5 0
	(b) Muga turban with white silk face borders.	Do. .	Do. .	11 oz.	8 yds. \times 27"	7 0 to 10 0

Serial No.	Description.	Time taken in weaving by the country loom.	Kind of silk used.	Quantity of silk used.	Measurement.	Price.
						Rs. A.
8	Muga shawl (with white silk flower borders).	2 to 3 days.	Muga .	7 to 9 oz.	2½ to 3 yds. × 45" to 54".	10 0 to 18 0
9	Hand spun Endi shawl with Muga borders (woven in Burpeta).	12 to 18 days.	Endi .	1½ lbs. (6 to 8 tolas Muga).	3 yds. × 54"	16 0 to 27 0
10	Pat shawl with Muga flower borders.	3 days .	China or Bengal.	6 to 8 oz. (5 tolas Muga).	Do. .	16 0
11	Spun silk shawl .	Do. .	2/160s spun.	8 to 13 oz.	Do. .	7 0 to 13 0
12	Pat chaddar (plain) .	2 days .	China or Bengal.	9 oz.	Do. .	7 0 to 10 0
13	Spun silk (plain) .	Do. .	2/160ss. .	9 oz.	Do. .	5 0 to 8 0
14	Endi chaddar (plain)	8 to 10 days at 2 hours a day. (Non-professional.)	Endi (hand spun).	1½ lb.	Do. .	4 0 to 12 0
15	Endi chaddar (plain) Barkapors or suitings.	15 to 20 days at 2 hours a day. (Non-professional.)	Do. .	2½ to 3 lbs.	6 to 7 yds. × 54".	10 0 to 24 0
16	Pat dhoti . .	2½ days	China or Bengal.	14 oz.	5 yds. × 45"	15 0 to 18 0
17	(a) Pat sari (Muga flower borders).	3 to 5 days.	Do. .	1 lb. 2 oz. (8 tolas Muga).	5 to 5½ yds. × 45".	20 0 to 25 0
	(b) Pat sari (red silk solid border).	Do. .	Do. .	1 lb.	Do. .	12 0 to 20 0
18	Spun silk sari (Muga flower borders).	Do. .	160s/2 .	14 oz.	Do. .	12 0 to 15 0

Serial No.	Description.	Time taken in weaving by the country loom.	Kind of silk used.	Quantity of silk used.	Measurement.	Price.
						Rs. A
19	Muga sari (red solid borders).	4 to 6 days.	Muga .	12 to 14 oz.	5 to 5½ yds. × 45".	12 0 to 20 0
20	Khasi sari in yellow, red, black or white put silk with flower borders.	Do. .	China or Bengal.	½ lb.	4 yds. × 36"	12 0 to 20 0
21	Bar pugree or big turban (Burmese pattern).	8 to 10 days.	Do.	—	6 yds. × 36"	60 0 to 80 0
22	(a) 'Teri' or Tel Kapor or silk screens in red and blue stripes for Garos and Khasia.	2 days .	160s/2 spun silk.	½ lb.	2½ yds. × 45"	7 0 to 8 0
	(b) Ditto .	Do. .	Spun 160/2 warp cotton 22s weft.	½ lb.	Do. .	3 0 to 5 0

9. The annual production of silk goods will be in the neighbourhood of 16 to 20 lakhs of rupees but no figures of goods of artificial or spun silk are available. They might be in the neighbourhood of one to two lakhs of rupees.

13. The total annual production of all silk goods is estimated at Rs. 20 lakhs.

14. There appears to be no restriction in the use of spun silk. On religious occasions Pat and Muga are still preferred; otherwise the use of spun silk is increasing. It not stopped by high duties it might in the long run kill the indigenous silk industry altogether. There is some opposition however to its use by people who are more or less inclined to go in for cloths of indigenous origin.

15. The weavers get their silk supply through middlemen. In the matter of indigenous silk such as Muga, Eri and Pat (mulberry) sometimes the reeler and the weaver (or the spinner and the weaver in the case of Eri) is one and the same person.

16. The Marwari merchants, who monopolise the trade, supply yarn on credit and there is no time limit. The extent of credit is limited to the volume of transaction of the individual weaver, who sells his cloth to the former.

17. Merchants sell directly and through brokers or retailers.

18. China silk is whitish and stronger and is preferred to Indian silk. Bengal silk is cream or yellow. Indian silk is less uniform and more costly than the former. Indian silk is however slowly gaining ground in the market.

19. Silk yarn is either sorted by the weaver himself or some local people, mostly women, are engaged in the sorting. No grading is done. There can be no question that if sorting and grading were introduced systematically and scientifically they would facilitate weaving and would result in increased consumption of Indian silk.

20. Weavers mostly dispose of their goods to Marwari merchants as they have dealings with the latter, who are on the spot and who lend money in season and out of season. Weavers sometimes make cloths on contract as well for the Marwaris.

21. There has been marked improvement in the quality of Indian silk of Bengal and Mysore but no appreciable improvement has been made in the case of Assam silk. There is an inclination on the part of the professional weavers and in fact of all the weaving population for the use of Indian silk and there is distinct demand in fact for the same. But the efforts so far made are not appreciable.

22. There has been slight though not appreciable improvement in the method of re-reeling Indian silk.

23. As regards artificial silk there is a craze among the people to go in for both the yarn and the finished products and the use has become increasingly popular. Mercerised cotton yarn dyed in the golden yellow shade has taken the place of Muga-silk in the warp and the artificial silk in the place of Pat or mulberry silk in the weft in the weaving of makhelas and rihās, chaddars, shirtings, etc., in the Assam Valley. Artificial silk will in the long run stifle the real silk of Assam if not checked early.

24. Spun silk is still a serious competitor to Indian raw silk. Attempts are being made to manufacture spun silk in some parts of India, particularly Mysore-spun silk cannot be driven out of the market in spite of additional tariffs as it is easy to weave. India should, in my opinion, produce spun silk of her own for the manufacture of dress materials. We cannot do without it. Further duty on spun silk will probably affect the Indian weaver.

25. There has been no appreciable variation in the prices of silk. As competition increases, weaver's margin with respect to independent individuals and wages with respect to workers on piece or monthly system under Mahajan weavers or merchants would naturally go down to some extent. It is the case where improved looms and Jacquards have been introduced for instance Snalkuchi the main professional silk weaving centre—and sale prices also in proportion but there has not been much change yet to record.

26. The handloom weavers have not derived any appreciable benefit by the duties yet. Imported silks are selling cheaper and cheaper and they have also seen considerable improvement in quality.

27. Only in Snalkuchi a few silk factories of from 4 to 6 and up to 10 fly-shuttle looms and Jacquards have come into existence. This is mainly due to improvement effected in the weaving and preparatory processes. They use imported Japan silk, raw silk and indigenous Muga silk. There is no local mulberry silk available in large quantities.

28. The weaving and other charges represent as a rule one half of the selling price of cloth. In other words an equal rate is charged on the cost of the raw material. But the charges of manufacture have of late come considerably down on account of improvement effected in the processes by departmental activities and on account of competition, economic depression, etc.

Some prevailing (current) rates in Muga and Pat weaving are given below:—

- (1) Reeling 1,000 Muga cocoons to yarn (20 to 25 tolas) is As. 10 to As. 12.

(2) Twisting of Muga yarn (single) is As. 6 to As. 8 for one "Biha" or hank weighing 8 to 9 tolas. (Biha=1,920 yds.)

Twisting of Pat yarn (single or double) is As. 6 to As. 8.

(3) Winding one Biha of Muga or Pat is As. 2.

(4) Sorting Pat is As. 6 per $\frac{1}{4}$ seer.

(5) Warping is As. 4 to As. 6 per Biha.

(6) Weaving charges—

(a) Adult weaver Rs. 15 to Rs. 20 per mensem.

Boy weaver Rs. 5 to Rs. 10 per mensem.

(b) Contract system—Rupee one to Rupees one eight for a Pat or spun sari or shawl. Rs. 2 to Rs. 2-8 for weaving a Muga piece.

29. Rural Co-operative Credit Societies are functioning but it is difficult to say whether the weaving population utilize the loans for purchasing raw materials or looms and accessories. Of late the Weaving Department has been supplying looms and accessories, yarn, colours, etc., on hire purchase or instalment system to members of Co-operative Societies through its Emporium and Central Stores. Spinning and weaving societies are being started in selected areas. A sum of Rs. 5,000 has been set apart for this purpose by the Emporium. Some progress has been achieved during the past two years but the acute economic depression stands in the way of better progress.

30. Finished products are largely made for the producers' domestic use. When they are sold at all they are brought to the neighbouring weekly or bi-weekly *hats* or markets. Marwari merchants again are the principle if not the sole buyers. The weaving population do not incur any expenditure in the way of freight or other charges except spending a day or two a week in attending the market. But with the improvement of road communications motor transport is becoming common and cheap and people want to enjoy the luxury of motor conveyance between their villages and the markets remaining quite oblivious to the fact that it means the loss of a portion of their hard earned income. The fare is about $\frac{1}{4}$ anna per mile, where motor competition is keenest. The merchants send goods by rail or steamer to Calcutta, the principal market for muga and endi fabrics, also Muga yarn, silk waste, etc.

31. The demand for natural silk is said to have increased as it can be inferred by the increases in the number of silk looms. The introduction of Karandi silk (of Japanese waste silk) chaddars and shirtings in the market has brought down the prices of Endi considerably low and it even threatened at one time to kill the Eri industry altogether. Eri silks have seen the lowest level in prices and they are popular in the market. The competition has brought about a decline in the fine weaving of Eri fabrics.

Karandi shirting (No. 4046 Japan 30 yds. x 29" is selling at As. 5 to As. 5-6 per yard.

32. Raw silk is brought from Bombay and Calcutta to Assam by up-country or Marwari merchants by rail and steamer. Assam's consumption of raw silk may be put at a lakh of rupees if not more. A duty of 50 per cent. on raw and spun silks and imported manufactured silks will bring some relief to the Assam silk industry. The Department of Sericulture and Weaving should receive substantial aid in staff and money to develop the industry.

33. Some Bengal silks and a little quantity of Mysore silks are being consumed by the silk weavers of Sualkuchi. Others use imported silks as a rule.

34. We want the revival of Assam Pat at any cost as it would find more employment to the people and ultimately to enrich the province. We therefore desire that the help received from the Government of India should continue for some more years.

- (2) *Letter No. 3999-E., dated the 27th July 1938, from the Secretary to the Government of Assam, Education and Local Self-Government Departments, Shillong.*

In continuation of this Department letter No. 3839-E., dated the 18th July, 1938, I am directed to forward a copy of letter No. S-12/2691 Ind., dated the 18th July, 1938, with its enclosure,* from the Director of Industries, Assam, in reply to the questionnaire regarding the sericultural industry forwarded with your letter No. 544, dated the 24th May, 1938.

Copy of letter No. S-12/2691 Ind., dated the 18th July, 1938, from the Director of Industries, Assam, to the Under Secretary to the Government of Assam in the Education and Local Self-Government Departments.

With reference to your Memo. No. 3049-E., dated the 10th June, 1938, forwarding a copy of letter No. 514, dated the 24th May, 1938, from the Secretary, Tariff Board, together with the questionnaire regarding the Sericultural Industry, I have the honour to submit enclosed my replies on the questionnaire with 6 spare copies, as required therein. In this connection I would point out that it is hardly possible to furnish complete and satisfactory answers to all the questions in such a short notice without proper survey. Answers have therefore been suggested as far as practicable from the report furnished by the Superintendent of Sericulture, Assam.

Answers to the Sericultural Enquiry Questionnaire.

1. The protection has resulted in greater production of cocoons and raw silk in the province of Assam where there are three species of silk worms, viz., mulberry, Eri and Muga, cellular seeds of which have been made available to a very large section of silk worm rearers.

In all the plains districts of the province of Assam.

(a) None.

(b) A large number of families do silk rearing and reeling as a subsidiary occupation but there are no reliable statistics of their number.

2. The silk worm rearers have their own food-plants. Some of them purchase disease-free seeds from the Government silk farms and for some time past from the model rearing houses where the seed examiners produce cellular seeds. Other rearers buy unexamined seeds from localities which have not come within the reach of the seed examiners. The Marwaris are the financing and marketing agents of cocoons, yarns and finished products.

3. Reliable figures are not available. It may be assumed that the present production can be quadrupled.

4. The reelable silk content per Kahan (1,280 cocoons) of Assamese Barpat (univoltine) is 1½ chhataks, Assamese Sarupat (multivoltine) is 1 chhatak, Univoltine French is 4 chhataks, Japanese bivoltine is 3 chhataks; Muga 4 chhataks per 1,000 cocoons and Eri 12 chhataks per seer of empty cocoons.

These yields compare fairly well with some foreign races.

5. Eri (*Attacus Recini*), Muga (*Antheraea Assamea*) and mulberry silk worms (*Bombyx Mori*). There are reared 6 varieties of Pat (mulberry) silk worms, viz., Assamese Barpat white, Assamese Sarupat white, Assamese Sarupat greenish-white, Bivoltine Japanese white (30th generation) acclimatised, Univoltine French yellow (11th generation) acclimatised, and Univoltine French white (5th generation) acclimatised.

* With 5 spare copies.

6. A rearing house, $32' \times 20' \times 9'$, with C. I. sheet roofing and arrangements for light and good ventilation under Shillong conditions costs with equipment, over Rs. 1,200. In the plains with thatched roof, it costs about Rs. 600. Under village conditions with minimum light and aeration, a rearing house $24' \times 12' \times 8'$, costs over Rs. 200. Thatching needs renewal almost every two years. Other articles, such as bamboo rearing trays, spinning trays and nets, if used carefully, last over 3 years. Considerable improvement in the villagers' rearing houses have been made, namely, separate rearing house with arrangement for light and air.

No. The cost of construction and equipment of a rearing house in the villago has rather considerably increased.

7. Race and variety.	Number of days (under Shillong climate.)	Number of cocoons to a pound (dry weight).	Length of filament. Yards.	Denier.
Univoltine French white .	45	250	1,000	
Univoltine French yellow .	45	275	950	
Univoltine French \times Assamese white	45	570	565	
Bivoltine Japanese white .	42	600	735	Denier of filaments is not record- ed.
Univoltine Assamese	40	900	375	
Multivoltine Assamese	38	1,100	290	

8. The village rearers did not know how and why to disinfect the rearing houses and appliances and seeds, nor to use thread nets regularly to remove the litters. All the above, besides sufficient feeding and spacing, have been taught to them (specially to the model rearing house owners). The advantages of the above new methods are that the worms become better developed, much less liable to diseases and yields successful crops of good cocoons, the rearers themselves saving a lot of time by the use of threadnets as against hand-picking for delitage.

9. Mulberry silk worms are reared from local, hybridised and acclimatised seeds; Eri and Muga from local seeds.

There is no separate organisation for production of seeds. The Government officers themselves produce examined seed in the farms and in the selected rearers' houses.

10. The Government of Assam has fixed very low price for cellular seeds produced in the farm and does not charge anything for selection of cocoons and production of cellular seeds in the selected rearers' houses. These measures are very much appreciated by the rearers.

11. Assam has got univoltine, bivoltine and multivoltine races of mulberry silk worms and multivoltine species of Eri and Muga. Three main broods of Muga and multivoltine mulberry silk worms and four broods of Eri are raised in a year.

As 70 to 150 layings of univoltine, bivoltine and multivoltine races go to make an ounce of eggs, the average number of worms from it may be taken as 32,000 and the number of ounces reared by each rearer's family during a year as 3 ounces.

12. Japanese bivoltine (30th generation), French yellow univoltine (11th generation) and French white univoltine (5th generation). The hibernation, estivation and cleavage are done under Shillong climate, at an altitude of about 5,000 feet. The cellular seeds are sent down to plains districts by

February each year, where they hatch during 7 days without any incubation. The size and shape of the cocoons degenerate in a year in the plains and as such, seeds are not raised in the plains. In Shillong, incubator is generally used and in some years artificial heat is used in the rearing rooms.

13. Cocoons well formed, almost uniform in size, shape and colour are selected for moth emergence. Healthy looking moths when paired, are isolated under small tin tunnels.

Precautions taken against Pebrino are elimination and destruction of layings from diseased moths examined under microscope, disinfection of layings with copper sulphate solution, disinfection (white-washing, sulphur burning and floor plastering) of rearing house disinfection of rearing appliances, in formalin or copper sulphate solution and use of healthy leaves.

14. Wastage in Muga (reared outdoor) from various causes is about 50 per cent., in Eri about 20 per cent. and in mulberry silk worms about 10 per cent.

Supply of disease-free seeds feeding with leaves from manured trees and plants and spacing of worms throughout the period of development have been more and more insisted upon.

15. Eri worms are fed with castor leaves (*Ricinus Communis*), Muga with Soom and Sualu (*Machilus odoratissima* and *Tetranthera Monopetala*) and Pat with mulberry (*Morus alba*).

In 95 cases out of 100, the rearers use leaves of trees and plants grown in their own land, for Eri, Muga and Pat silk worms.

Trees and plants (except for Muga worms) are not grown in regular plots; they are rather grown scattered and on boundary lines. The manure used in cowdung for all kinds of food plants. The cost of cultivation is thus negligible.

The leaf yield of food-plants vary according to the age of the trees, plants or bushes.

Eri-food-plant is annual; Muga food-plants live 30 to 40 years and mulberry trees over 15 years if not damaged by borers or grown on poor soil.

There are about 150 Muga food-plants in an acre.

16. (a) Propagation of mulberry trees (bearing neither fine nor coarse leaves) has been in practice for the last 12 years. Tree plantation which is economic from the point of view of upkeep is always done by the rearers and advised by the departmental officers.

(b) Four leaf crops. Tree cultivation is preferable.

17. Does not arise.

18. The position remains the same as before.

19. Destruction of borers, cowdung manuring and medium leafed tree mulberry plantation have been adopted.

20. *Vide* answers 19, 13 and 8. Marketing facilities have not yet improved.

21. The local univoltine race of mulberry silk worms yields silk only about 1/3rd of the acclimatised univoltine French races and the Japanese bivoltine race yields 3 times more than the indigenous multivoltine races.

Average yields of cocoons per ounce of seed is about 31,000.

	Worms.
Univoltine	25,000
Bivoltine	35,000
Multivoltine	44,000

From some 320 medium sized mulberry trees (say in an acre) approximately 12 maunds of green cocoons are obtained. Mortality of worms during the rearing period has to some extent been reduced.

22. Hybrids of univoltine and multivoltine are not desirable. Their progenies manifest irregular characters and habits. French univoltine crossed with Assamese univoltine has given cent. per cent. better result than the latter alone.

23. Does not arise (*vide* answer 15).

24. Number in case of Pat and Muga cocoons is the prevailing system in Assam, as weight, unless the cocoons are completely dry, is considered to be an uncertain standard. Increase of Eri, which are sold emptied of dead worm inside, the price per lb. varies between Re. 1 and Rs. 1-4, according to the quality of cocoons.

Since 1933-34, the maximum and minimum prices have been as follows:—

	Maximum.	Minimum.
	Rs. A.	Rs. A.
Eri	1 4	0 10
Muga	1 10	1 2 per 100 cocoons.
Pat—generally not sold.		

25. The breeders of Pat keeps their cocoons to reel. Muga and Eri breeders sell the major portion of their cocoons. Very few rearers can hold on their cocoons for better price. From 1,000 Muga cocoons a rearer reeler gets $\frac{1}{2}$ lb. good yarn which sells at Rs. 3-8 to Rs. 7-8 per lb.

From 1,280 multivoltine Pat cocoons $\frac{1}{2}$ lb. of yarn is obtained and is sold at Rs. 4 to Rs. 7 per lb.

From 2 lb. of empty Eri cocoons, $\frac{1}{2}$ lbs. of yarn is obtained. It is sold at As. 14 to Rs. 3 per lb.

The figures for silk waste is not available.

26. The entire production of three kinds of silk, Eri, Muga and Pat, is hand reeled and hand spun.

27. Reliable figures for raw silk and silk waste are not available. *Vide* answer 24.

4,000 Muga cocoons yield 1 seer of excellent yarn.

2,800 Eri cocoons yield 1 seer of yarn.

20,480 Pat (multivoltine) yield 1 seer of yarn.

6,400 Pat (bivoltine) yield 1 seer of yarn.

5,120 Pat (univoltine French) yield 1 seer of yarn.

Bengal and Madras types hand reels are used along with local reel which is made of a short round wooden stick which winds the yarn as it is made to revolve with the palm of the hand.

28. The cost of indigenous hand reel is about Rs. 2 while the other types named above cost between Rs. 18 and Rs. 24. The outturn depends on the operator and may vary from a few chhataks to one seer per day of 8 hours.

The stick reel lasts 25 to 30 years.

29. The cost for reeling one pound of raw silk in a stick reel or Bengal reel is about Rs. 1-8 (labour of 2 men and fuel).

30-34. Do not arise.

35. (1) (a) As. 8 a day.

(2) Greatly.

(3) (i) Better kind of reel and expert training.

(ii) Improved methods of rearing and plantation.

36-41. Do not arise.

42. Some progress has been made to turn out uniform yarn without floss and knots, and dirty colour.

Re-reeling is just being tried in Assam.

43 & 44. Do not arise.

45. Pieces for sarees, dhoties, shirts, blouse, skirts, turbans, wrapping, screens, handkerchief, panjabi and coat, embroidery, socks and pyjamas and suits, etc. (of Eri).

46. (i) No reliable estimate can be given; but it can be said that silk products of Assam do not remain unsold for any considerable period.

(ii) Reliable figures are not available.

47. The Marwaris are the only silk dealers in Assam. They buy cocoons, yarns and finished products either on cash or advance system.

About 1/3rd of the total produce of raw silk and whole of silk waste are consumed locally. The balance goes out to other parts of India and probably abroad. The figures are almost constant (for local consumption, consumption in India and abroad).

48. There has probably been no improvement in silk export. A conditioning house may bring about efficiency in filature, by dictating conditions to be satisfied for export of raw silk.

49. Does not arise.

50. The prices in distant markets are not known. In the home market there has been a rise in price of some 5 to 10 per cent.

51. There are no facilities, but silk yarn is either sorted by the weaver himself or some local people mostly women are engaged in the sorting. No grading is done. There can be no question that if sorting and grading were introduced systematically and scientifically they would facilitate weaving and would result in increased consumption of Indian silk.

52-56. Figures are not available.

57. My Weaving Superintendent thinks that China silk is stronger and preferred to Indian silk, but Indian silk is slowly gaining ground in the market and my Superintendent of Sericulture thinks that Chinese and Japanese silk and spun silk are superior in lustre only to country silk and that they do not compare with the local silk in respect of tenacity and elasticity.

58. Not known definitely.

59. The present position is the same as before.

60. Does not arise.

61. 25 to 40 per cent. according to the species of cocoons and seasons during which they are formed.

62. Silk wastes are not sold in Assam; they are locally consumed.

63. French univoltine and Japanese bivoltine cocoons are much less flossy than the univoltine indigenous and multivoltine races. Assamese univoltine race has been crossed with French univoltine.

64. Nono.

65. Does not arise.

66. Silk wastes are not exported from Assam. Better price offered for wastes may induce export.

67. The Marwaris do export silk fabrics to all parts of India through their agents in different provinces. It is likely that Assam silk fabrics are also exported to overseas dominions by Marwaris; but the names of places and persons are not known. Export trade is almost standstill.

68-71. A duty of 50 per cent. on raw and spun silk and imported manufactured silks will bring some relief to the Assam silk industry as there has been severe competition by artificial silk which in the long run will stifle the real silk of Assam if not checked early.

The Departments of Sericulture and Weaving should receive substantial aid in staff and money to develop the industry. We want the revival of Assam pat at any cost as it would provide subsidiary occupation to the people and ultimately enrich the province. We, therefore, desire that the help received from the Government of India should continue for some years more.

72. The rise in price of cheap imported silk yarn and piecegoods has to some extent decreased their consumption and increased that of the local silk, in consideration of the fact that production of local raw silk has increased fairly and purchasers have realised that cheap things are dear in the long run.

73. The Government has entertained staff for examination of diseased cocoons and distribution of disease-free seeds with the grant received from the Government of India. In addition there are two Government Sericultural farms and staff for demonstration works.

74. Assam at least hopes so.

(1) 30 to 40 per cent. reduction can be effected through (2) leaf supply, cost of seed, fall crop, cocoons of higher silk content and good yarn by (3) planting better and higher leaf yielding variety of mulberry trees, use of complete manure (nitrogen, phosphate lime and humus), acclimatisation and hybridisation of high yielding and less flossy, varieties of silk worms, use of disease-free seed, sanitary rearing houses, improved methods of rearing, thorough disinfection of rearing houses and appliances, prevention of mortality in worms, and efficient reeling combined, with good marketing facilities (if possible through Government agencies or under Government control).

(3) *Letter No. 855, dated the 12th August, 1938, from the Tariff Board, to the Secretary to the Government of Assam, Education and Local Self-Government Departments, Shillong.*

I am directed to refer to Mr. Gohain's letter No. 3999-E., dated the 27th July, 1938, on the subject of the grant of protection to the Sericultural Industry.

2. In order to enable the Tariff Board to make recommendations to the Government of India regarding the grant of protection to any particular article, it is necessary for it to ascertain the cost of production of that article, and the price of the imported article which competes with it. In the case of sericulture, the price of raw silk depends on the cost of production of the leaves on which the silk worms are fed, the cost of rearing cocoons and the cost of reeling the raw silk from the cocoons. The questionnaire which has been issued by the Tariff Board has been framed with the object of eliciting information on these three points.

3. The Tariff Board understands from the reply of the Government of Assam that the cost of mulberry leaf is negligible. The Board would like to have verification of this statement. The Director of Industries has stated that owing to want of sufficient time he has not been able to furnish complete and satisfactory answers to the questionnaire. The Board would feel grateful if you could send a supplementary memorandum dealing specially with the points referred to in paragraph 2 of this letter.

4. The Board would also like to know whether the Assam Government could give some idea as to the present extent of the cultivation of the mulberry silkworms. It is believed that the competition from imported silk affects mainly the product of the mulberry silkworms, but the products of the Eri and Muga worms are of importance in Assam; and information is required to enable the Tariff Board to determine the cost of production of Eri and Muga silk.

(4) *Letter No. 5735-E., dated the 26th September, 1935, from the Deputy Secretary to the Government of Assam, Education Department, Industries Branch, to the Secretary, Tariff Board.*

* * * * *

I am also to forward a copy of a letter No. 3534-Ind., dated the 24th September, 1938, from the Director of Industries, Assam, containing the supplementary memorandum as asked for in your letter No. S55, dated the 12th August, 1938.

Copy of letter No. 3534-Ind., dated the 24th September, 1938, from the Director of Industries, Assam, to the Deputy Secretary to the Government of Assam, Education and Local Self-Government Departments.

With reference to the correspondence ending with your letter No. 5561-E., dated the 8th September, 1938, regarding the submission of a supplementary memorandum regarding grant of protection to the Sericultural Industry, I have the honour to refer to my answer No. 15 to the questionnaire by the Tariff Board, submitted with my letter No. 2691, dated the 18th July, 1938, in respect of the cost of production of leaves for eri, muga and pat silkworms.

In Assam, there is no regular plantation of castor plants and mulberry trees. These are grown at random in the homestead land and abandoned patta land. Mulberry trees are propagated by cutting planted here and there and castor plants grow year after year in areas from seeds fallen to the ground where they had once been sown along with some other crops like sesamum, mustard, chillies and tobacco. So the cost is negligible in the sense that the owner has got to pay the land revenue only. The cowdung manure which is applied is obtained from his own cattle or that of his neighbour for nothing. Small and big areas, sometimes covering several acres under Soom (muga food plant) are found near his home or elsewhere. In many instances the big areas have come into existence from spontaneous propagation with seeds from stray plants that grew or seedlings that were planted generations ago. Here, too, the cost of production of leaf amounts only to the land revenue to be paid to the Government.

In answer to the questionnaire No. 1 (b) referred to above, it has been stated that Sericulture in Assam is a subsidiary occupation of the agriculturists. As such the cost of rearing (i.e., production of cocoons) cannot be worked out having regard to the fact that it is a part of domestic affairs managed by the combined efforts of men, women and grown up children of a family.

Similar is the case in respect of reeling and spinning. The rates stated in answer to questions 29 (b) and 35 (1) (a) relate to Government farms where everything is paid for.

The expenditure for production of leaf, rearing and reeling that is incurred by Government farms cannot form a standard or criterion as it exceeds several times the value of raw silk reeled; and the Government farms are meant specially for production and supply of disease-free seeds.

Owing to paucity of the Sericultural Staff, no survey with a view to collect statistics of silk production in Assam has been made till now. As such it is not possible to give any figures for cultivation of silkworms.

(5) *Letter No. Sc. 12/337-T., dated the 16th December, 1938, from the Director of Industries, Assam, Shillong.*

I have the honour to return herewith, after necessary corrections, the copy of the record or oral evidence tendered by me before the Board on 19th November, 1938, and to furnish below the information promised by me in course of my oral evidence.

To facilitate reference, I have marked serially in red the portions on the record of oral evidence on which further information is desired by the Board.

(1) Please refer to my reply to question 7. My Superintendent of Sericulture now says that "Dry weight" was put through mistake in the heading of the third column. It should be "Green" weight. He also suggests that the following figures should be substituted for the figures previously put under that column:—

French x Japanese white	400
Bivoltine Japanese white	300
Univoltine Assamese	600
Multivoltine Assamese	780

(2) The number of cocoons to a lb. of silk, green weight is noted below as furnished by my Superintendent:—

French Univoltine—(250 cocoons=1 lb.)	10½ lbs. or 2,560 green cocoons give 1 lb. of silk.
Japanese Bivoltine—(300 cocoons=1 lb.)	10½ lbs. or 3,200 green cocoons give 1 lb. of silk.
Assamese Multivoltine—(780 cocoons=1 lb.)	13 lbs. or 10,140 green cocoons give 1 lb. of silk.
Eri (1,000 empty cocoons=1 lb.)	1¼ lb. or 1,400 empty cocoons give 1 lb. of silk.
Muga—(125 cocoons=1 lb.)	16 lbs. or 2,000 green cocoons give 1 lb. of silk.

(3) A book on Eri silk by Mr. L. M. Das, retired Superintendent of Sericulture, containing details about climatic conditions and methods of rearing, etc., is sent herewith for the Board's perusal.

(4) The number of layings generally to an oz. of seed of the three varieties of mulberry raised in Assam is as follows:—

French Univoltine	70.
Japanese Bivoltine	100.
Assamese Multivoltine	150.

(5) 125 green muga cocoons weigh one lb.

(6) The cost of production of seed in the Titabar farm as worked out by my Superintendent of Sericulture is Rs. 2-7-6 per 100 layings. In view of the fact that there is no staff in the farm exclusively engaged in the production of seeds, it is very difficult to find out accurate figure and the difficulty is still greater in the case of agriculturists who are not whole-time rearers but carry on this subsidiary industry along with agriculture and other pursuits. The prices at which layings of different varieties are sold are note below:—

	Layings.	Rs. A.
Assamese multivoltine	100	0 5
Foreign races	100	0 10
Muga	100	2 4
Eri	100	0 5

The average sale price of all the varieties is therefore about As. 14 (fourteen annas) per 100 layings.

(7) My Superintendent reports that 10 per cent. wastage means loss during the stages of development of the worms in the model rearing houses, where rearing is conducted under the strict supervision of the demonstrators.

(8) There are 140 model Rearing Houses in all at present in Assam. 100 were started with the help given from the Government of India's grant and the rest were constructed by the Agriculturists themselves.

(9) Bulk of the rearing of mulberry worms is not done in the model Rearing Houses.

(10) The percentage of disease-free seeds is—

In the Government farms—about 96.5.

In the model Rearing Houses (on average)—about 90.

(11) About 650 lbs. of mulberry leaves are required to feed the worms from 1 oz. of seed.

(12) There was a mistake in striking the average. It should be 31,000 and neither, 31,000 nor 32,000 (34,000 worms are obtained from 1 oz. of seed).

(13) My Superintendent has since enquired and finds that the variations in the local markets are as already stated in the written answer for reasons given in my oral evidence.

(14) & (15) Please refer to (2) above.

(16) My Superintendent now says that the figure 1,100 is incorrect and that it should be 780. The rendita therefore, would work out to 13 and not 9.3 for multivoltines.

(17) My Superintendent reports that the cost of fuel is calculated at As. 8 on the basis of the cost at the Government farm where the cost of fuel is a little high. In the villages, it will be no doubt less.

(18) Mulberry waste is spun in "Takkis".

(19) & (20) The rise of 5 to 10 per cent. in price is due to improvement in quality since the protection came into operation.

20. Government of Bihar.

(1) *Letter No. 1440-D., dated the 22nd July, 1938, from the Assistant Secretary to the Government of Bihar, Development Department, Patna.*

Subject: SERICULTURAL ENQUIRY.

I am directed to invite a reference to the correspondence resting with your letter No. 639, dated the 27th June, 1938, and to enclose copies of letters Nos. 12583, dated the 15th July, 1938 (with six spare copies) and 12587, dated the 18th July, 1938, from the Director of Industries, Bihar, containing such information as is available.

Enclosure I.

Copy of letter No. 12587, dated the 18th July, 1938, from the Director of Industries, Bihar, to the Secretary to the Government of Bihar, Education and Development Department, Patna.

With reference to the Assistant Secretary's memo. No. 1317-D., dated the 6th July, 1938, forwarding a copy of letter No. 639, dated the 27th June, 1938, from the Secretary, Tariff Board, with questionnaire for silk and artificial silk goods manufacturers, I have the honour to give the following replies serially:—

1. (a)-(d) The Government of Bihar maintain a Silk Institute at Bhagalpur to train young men of the province in sericulture and dyeing and weaving of silk goods and manufacture goods with the help of a few local weavers and market them. This commercial work is undertaken in order to advertise Bihar silks and secure wider markets for the same.

2. The output may be increased to a lakh of rupees in value.

3. We manufacture only pure silk goods and the output of the same for the last 5 years is given below:—

	Rs.
1933-34	5,459
1934-35	5,739
1935-36	8,201
1936-37	20,922
1937-38	19,944

4. The chief classes of goods manufactured in the Silk Institute are silk scarves, mufflers, curtains, bedspreads, rugs, table covers, table napkins, cushion covers, sarrees, shirtings, coatings, etc. Separate figures of output in each of these various varieties are not available. The bulk of our business is in scarves and mufflers.

5. (a) The annual consumption of raw materials such as reeled and handspun mulberry spun silk, hand spun eri, tasar and munga silk yarn from the year 1933-34 is noted below:—

	Rs.
1933-34	3,377
1934-35	4,887
1935-36	6,582
1936-37	14,538
1937-38	13,291

Artificial silk and staple fibres are not used by the Silk Institute. The Institute uses about 75 per cent. indigenous silk and about 25 per cent. foreign spun silk mostly from Japan.

(b) Imported spun silk is cheaper in cost and easier to weave than reeled or hand spun silk of local origin.

6. (a) The quantity will vary with the quantity and width of cloth woven. In the weaving of 45" fabrics for sarrees 5 to 6 tolas of raw silk will be required.

(b) Mixtures are not woven.

7. The Silk Institute buys raw materials from the local market.

8. About 1½ lb. of raw silk is required to weave 1 lb. of finished cloth.

9. Our articles are dearer than imported ones.

10. Yes, we manufacture our goods with hand appliances.

11. Twisted raw silk is bleached and dyed with other silk yarn mentioned in item 5. After winding and warping the same, it is woven on handlooms. Finishing is done by local dhobies.

12. The information is not available.

13. We have no information on the subject.

14. The Silk Institute being partly a teaching institution, the question cannot be answered.

15. As the Silk Institute produces special patterns, there is no competition in the classes of goods produced by the Institution.

16. We have no complaints so far.

17-22. Ours is a Government Institution.

23. If the mills weave sarrees, the interest of hand weavers will suffer.

24. We have no reliable information regarding smuggling.

Enclosure II.

Letter No. 12583, dated the 18th July, 1938, from the Director of Industries, Bihar, Patna.

With reference to the Assistant Secretary's Memos. No. 1062-D., dated the 25th May, 1938, and No. 1159-D., dated the 10th June, 1938, I leave the honour to enclose herewith replies to the questionnaire of the Tariff Board relating to the Sericultural industry in this province and to say that Bihar is not producing mulberry silk and we are at present primarily concerned with the development of our tasar silk industry. The replies to the questionnaire refer to the mulberry silk industry which is carried on in a few villages adjoining the Malda district of Bengal.

2. As regards the questionnaire received with the Assistant Secretary's Memo. No. 1236-D., dated the 24th June, 1938, the same are meant for Importers and Traders and hence no replies have been suggested to the same.

Questionnaire for Local Governments.

1. (a) The number of handlooms in Bihar as per census of 1921 is 95,000—

(1) 733 looms in the weaving of tasar silk.

(2) 1,971 cotton and tasar silk mixed.

(3) 89,837 looms weaving cotton goods.

(b) It is not possible to state whether there is any increase or decrease in the above numbers.

2. Tasar silk is produced locally. Mulberry silk is produced in a few villages adjoining Malda district, while hand spun eri silk is imported from Assam. Spun and artificial silk yarn is imported mostly from Japan. No gold thread is used in this province.

The retail price of these are given below:—

Local reeled tasar—Rs. 5-8 to Rs. 6 per lb.

Malda reeled mulberry—Rs. 6 per lb.

Mysore filature silk twisted—Rs. 8-8 to Rs. 9 per lb.

Hand spun "eri" silk—Rs. 2-1 to Rs. 2-8 per lb.

Spun silk yarn (foreign)—About Rs. 5 per lb.

Artificial silk yarn—About As. 12 per lb.

3. Recently staple yarn is also being imported but, the quantity used is very small. It is obtained from Japan and 40/2s is sold at about As. 14 per lb. and 210/2s at Rs. 2-6 per lb.

4. The spun silk is being replaced with staple yarn as it is cheaper. The people have yet to know the poor weaving quality of the latter.

5. Twisting is not done by the weavers; but, the boiling and dyeing are carried on along with the preparation of warp.

6. Reeled tasar, spun silk and staple yarn are used for warp, and cotton yarn, hand spun "eri", noil-silk, reeled tasar and mulberry silk are used for weft.

7. The financing of the trade is still in the hands of the merchants. So long the raw material is to be imported, the services of merchants or middlemen is necessary. Although the ideal system of organising the cottage industries is on co-operative lines the weavers are not sufficiently intelligent and solvent to form themselves into societies and manage the same. It will, therefore, be necessary to train a class of intelligent leaders or master-weavers from the educated middle class. They should not only invest their own capital but take the responsibility of purchasing the raw material and the marketing of the finished goods. Efforts are being made in Bihar to provide such enlightened leadership for cottage industries.

8. In addition to some of the goods mentioned in the questionnaire, Bihar weavers now produce silk scarves and mufflers for European markets. The weaving of reeled mulberry silk fabrics is being introduced. New classes of tasar fabrics such as curtains and leno nets are being produced and advertised. The classes of goods manufactured by the silk weavers in Bihar are different from those imported. Some of them are woven mostly for the European markets. Imported artificial and spun silk goods are being sold in increasing quantities and are replacing the indigenous fabrics. These imported fabrics are mostly used for shirtings and ladies' blouses.

9. The total production of goods is roughly estimated at about 30 lakhs of rupees.

- 10. Reeled mulberry silk saris 2 yds. per day.
- Reeled tasar silk saris 2 yds. per day.
- Spun silk shirtings 8 yds. per day.
- Art silk and staple yarn saris 5 to 6 yds. per day.
- Scarves 4 yds. a day.
- Cotton and tasar sari (bafta) 3 yds. a day.

- 12. Saris $5\frac{1}{2}$ yds. \times 45"—Rs. 2-8 to Rs. 5-8.
- Lungis 12 yds. \times 45"—Rs. 5-8 to Rs. 6-8.
- Dopatas 3 yds. \times 45"—Rs. 1-8 to Rs. 3.
- Shirtings 9 yds. \times 30"—Rs. 2-12 to Rs. 6.
- Coatings 9 yds. \times 28"—Rs. 10 to Rs. 32.

13. About 30 lakhs of rupees including artificial and staple yarn goods.

14. Spun silk is used for weaving saris, shirtings and coatings and for all fabrics mentioned in 12.

15. Tasar silk is reeled by the women in the weavers' houses.

Other qualities of silk are purchased through dealers.

16. The merchants supply silk on credit up to a limit of about Rs. 50 in each case and for a period of about a couple of months.

17. The local merchants purchase their silk through the importers in Calcutta and Bombay.

18. Mulberry silk is not imported into Bihar from foreign countries. Artificial silk, spun silk and staple yarn are not produced in India.

19. No. There is an urgent necessity of sorting and grading of silk as it is being done in Mysore and Kashmir in respect of flature silk.

20. Yes. The weavers in such cases get only the weaving charges.

21. The position has remained the same so far as the Bengal silk is concerned. The graded silk can now be had from Mysore.

22. Imported reeled silk is not used in this province.

23. The position has remained unaltered.

24. No. The rate of duty should be enhanced.

26. No.

27. No. A couple of factories started before 1934 continue to weave spun silk goods.

29. Practically no assistance is given by the co-operative societies.

30. The manufactured goods are sold locally or in neighbouring villages and towns.

31. In the absence of statistics, it is not possible to answer this question.

32. Tasar silk is produced locally. Reeled mulberry is imported from Mysore, Bengal, and hand spun eri from Assam. The approximate value of raw silk tasar and mulberry used may be estimated at 5 lakhs of rupees in value.

33. No.

34. The raw and spun silk yarn is still being imported from foreign countries as before. The increase of duty on spun silk is sure to affect adversely the weaving industry of Bhagalpur.

Sericultural Enquiry—General Questionnaire.

1. The production of reeled mulberry silk in Bihar is now extremely small. There has been a slight increase in the number of rearers since 1934 and about 50 persons are reported to be carrying on rearing as part-time occupation.

2. The rearers grow their own mulberry and rear worms from eggs supplied free of cost by the Seed Supply Station at Ranchi and the Silk Institute at Nathnagar. The cocoons are either sold to the reelers in Bengal or to the Government Silk Institute which encourages the development of this industry. Last year the local Government paid Rs. 500 as subsidies to 33 rearers.

3. Figures are not available.

4. One maund of green cocoons (Nistari race) yield about 2½ seers of raw silk. The yield from the Chinese, Japanese and Italian races are reported to be 3 seers, 3½ seers and 3½ seers of silk respectively.

5. "Nistari" and "Boropolu" of Bengal and multivoltine variety of Mysore.

6. No separate rearing house has been constructed.

7. Figures not available.

8. Rational methods of rearing are being taught and disease-free eggs are being supplied to the rearers.

9. The worms are reared from local seed eggs which are produced separately at the Government institutes, cocoons are reared in Rearers' huts.

10. No.

11. Multivoltine. 5 broods in a year. 52,000 of worms are produced from an ounce of seed.

12. No.

13. Compact and medium size seed cocoons are selected from a disease-free brood. Healthy moths are reserved for copulation and oviposition. The Pastur method is adopted.

14. The present wastage is 10 per cent. against 45 per cent. in the previous years.

15. Leaves of bush mulberry. The rearer produces leaves on his own land. The initial cost of cultivation is Rs. 30 per acre and recurring Rs. 15 per annum. Cowdung and silt are used as manure. 150 maunds of leaves are obtained per acre of land with bush mulberry and about 16 to 20 maunds of leaves cost about 4 to 5 rupees.

16. (a) Yes.

(b) 4 crops. Other information not available.

17. Not available.

18. The price of cocoons has gone up proportionately. The rearers who had given up this industry have started planting mulberry this year.

19. Nil.

20. No improvement has been effected.

Our rearers are not interested in univoltine worms.

22. Do.

23. Figures not available.

24. The price of 1 maund of cocoons in 1933-34 was Rs. 16 to Rs. 18.

The price of 1 maund of cocoons in 1938 is Rs. 22.

25. The rearers sell their cocoons to reelers in the neighbouring province of Bengal.

55. There is no competition between Indian silk goods and those of artificial silk and staple yarn as the latter are quite different class of fabrics and compete with cotton goods.

57 & 58. Imported raw silk is not used in this province.

59. The position is just the same as before.

67. We export the silk fabrics to England and United States of America. Our sales in both these countries are increasing. We have been exporting these goods to England since 1924. But since the imposition of heavy import duty in that country, our sales were reduced from Rs. 45,000 to less than Rs. 5,000 per annum.

The exports for the last 2 years are given below:—

	1936-37.	1937-38.
England	4,456	5,509
United States of America	11,433	7,685

69. A protective duty of 100 per cent. is recommended. The rearers should also be supplied with disease-free eggs by the Government and they should be helped in marketing their production.

70. While the above recommendations are expected to help the sericultural industry, they are likely to increase the price of the raw material used by the handloom weavers. But as the handlooms produce a class of goods different from imported fabrics the enhanced import duty is not expected to adversely affect the silk-weavers.

71. The cost of raw silk is about 80 per cent. of the value of twisted silk and less than 50 per cent. of the piecegoods.

72. The rearers were not much benefited by the protection granted in 1934.

73. The Bihar Government give subsidies to rearers, supply disease-free eggs and mulberry cuttings free of cost. Technical advice is also given to the rearers through itinerant instructors.

74. Yes. Planting of mulberry trees is recommended as the cost of growing and maintaining the same is very little. The cost of mulberry leaves can be reduced to half and the cost of the raw silk by about a rupee per lb.

(2) *Letter No. 777, dated the 28th July, 1938, from the Tariff Board, to the Secretary to the Government of Bihar, Development Department, Patna.*

I am directed to acknowledge receipt of your letter No. 1440-D., dated the 22nd July with which copies of letters No. 12583 and No. 12587, dated the 18th July have been forwarded from the Director of Industries, Bihar, who has expressed his inability to reply to portions of the questionnaire of the Board on the ground that the information asked for relates only to mulberry silk. The Tariff Board is investigating the question of the continuance of protection to the Sericultural industry as a whole and in consequence has to enquire into the claims of protection of all silk produced in India including that produced from the tasar and eri worms. The Board has asked specifically for the cost of production of mulberry because the mulberry worm is by far the most common of all the breeds in India. But it is necessary to compute the cost of production of other kinds of silk also. The Board will therefore be grateful if the Government of Bihar will answer the questions relating to the costs of production of tasar silk and all other questions which are applicable generally to all kinds of silk.

(3) *Letter No. 1178, dated the 18th October, 1938, from the Tariff Board, to the Secretary to the Government of Bihar, Development Department, Patna.*

I am directed to invite your attention to my letter No. 777, dated the 28th July, 1938, in which the Provincial Government were requested to furnish answers to such of the questions in the General Questionnaire issued by the Tariff Board as were applicable generally to the cost of production of tasar and other kinds of silks and to enquire as to when a reply thereto may be expected. As the Board is about to complete its labours, the favour of a very early reply is requested.

(4) *Letter No. 2010-D., dated the 15th November, 1938, from the Secretary to the Government of Bihar, Development Department, Patna.*

SERICULTURAL ENQUIRY.

I am directed to refer to the correspondence resting with your letter No. 1178, dated the 18th October, 1938, and to enclose answers to questions in the general questionnaire and the questionnaire regarding sericultural inquiry in connection with handloom industry.

Enclosure 1.

GENERAL QUESTIONNAIRE.

1. The prices of tasar cocoons have come up from Rs. 2-8 to Rs. 4 per 1,280 inferior cocoons and from Rs. 9-3 to Rs. 13 for superior 1,280 tasar cocoons. Many rearers who gave up tasar rearing have again commenced to take it up.

Tasar rearing and reeling are part-time occupation and very few depend upon the industries for their livelihood. There is a village named Kurpat near Sabour where about 100 spinners spin tasar waste and depend upon it for their livelihood.

2. Kols, Mahtos, Santals, Ghatwals, Mal Paharias, Hos and other aboriginal tribes pay royalty of Re. 1 per family to the Government for allowing them to rear on trees in the forest and collect tasar cocoons. They sell the cocoons to contractors or middlemen and these take the cocoons to Mahajans. The Mahajans sell the cocoons in the silk weaving centres to weavers. Women generally reel and spin the cocoons and men weave the yarns into cloth. They generally take advances from silk merchants or master weavers and are therefore bound to accept whatever weaving charges are offered to them. The merchants put the silk cloths in the market and take the lion's share of the profit. They generally sweat the weavers. There is no proper organisation for distributing these fabrics. Government has recently appointed agents for the sale of these fabrics both in Bihar and outside Bihar.

3. The industry is a precarious one. The maximum production in Bihar nowadays is about 17½ lakhs of Kharies annually (1 Khari=1,280 cocoons). About 4,000 mds. of the cocoons are exported to Central Provinces and Bengal every year.

Exact annual figures of the production of tasar cocoons and reeled silk for the last five years are not available.

4. From 1,280 Mudia or Magai cocoons, Daba cocoons and small cocoons about 1½ seer, one seer and ten chittaks of reeled thread, respectively, are available.

5. Mudia or Magai, Daba, Jatu Daba, Bogai and Sarhain varieties are reared.

6. The worms are reared on trees. No rearing house or appliances are required.

8. We are at present crossing the moths in captivity and thus we are getting pure races which should be more regular in their emergence and yield of superior silk. The rearers allow the male moths to fly away, and tie the female moths. They are visited by wild male moths and thus they are fecundated. Thus they always get eggs from mongrels. We are trying to persuade the rearers to cross their moths in captivity. We are also trying to inbreed the tasar worms but our experiments have not yet been successful.

9. Rearing is generally done from local seed cocoons. Cocoons are being imported from distant localities by the Government Seed Supply and Research Stations at Chaibassa, Hura (Purulia) and Amrapara (Santal Parganas) and their eggs are distributed to rearers.

There is no separate organisation nor control for production of seed cocoons in the houses of the rearers. This is only done in Government Seed Supply and Research Stations.

10. There is no legislation for preparing eggs. The Government has started three stations for supplying disease-free eggs.

11. The worms are trivoltine. Three crops are taken in a year. From one ounce of eggs about 1,280 cocoons are obtained. On average about 2,500 worms die out of 3,600 eggs.

12. No.

13. The Pasteur method of selecting disease-free eggs has been adopted. The rearing room and the appliances are washed with formaline. The pebrinized female moths are destroyed with their eggs. As tasar is reared in the open pebrine does not appear in even 1 per cent. of the moths. Flacherie is the main diseases of the worms.

14. The mortality in the worms is about 60 per cent. No appreciable improvement.

15. Asan, Arjun, Sal, plum, etc. Each rearer has to pay about Re. 1 per year for the trees they utilise for rearing. From one good tree about 80 cocoons are obtained.

16. (a) Experiments are being made to improve the yield of Asan, Arjun and Sal trees.

17. The plants are wild, nothing is spent for cultivation.

18. Cocoons are selling dearer now as compared with other food crops. As the price of cocoons is high new rearers are taking up the industry.

19. Bush plants have been planted to see whether the yield is better than big trees.

20. No material change in rearing and cultivation. Government has started marketing organisations.

21 & 22. Do not arise.

23. The tasar rearers do not spend a single pie during rearing. One man watches the silkworm and drives away insectivorous birds, etc. He buys only one rupee worth of seed cocoons if he has not kept his seed cocoons or procured the same from jungles.

24. Tasar cocoons are sold by Khari or Kahan of 1,280 cocoons. Inferior cocoons are selling now at Rs. 4 and the superior cocoons at Rs. 13 per 1,280, whereas in 1933-34 the rates were Rs. 2-8 and Rs. 9 respectively per 1,280.

25. The breeder sells his cocoons. He sells at once and rarely after 5 or 6 months.

26. All the cocoons are reeled by hand on Latai (Bamboo reel).

27. From 1,280 cocoons of superior quality 1 seer 4 chitaks of reeled silk and 5 chitaks of waste and from 1,280 inferior cocoons, 10 chitaks of reeled silk and 4 chitaks of waste are obtained.

28. Four annas. This will last at least for five years.
- 29-32. Do not arise.
33. The exact figures are not available.
34. Does not arise.
35. (1) On average one reeler earns As. 2 per day and one rearer Rs. 2 in one month.
- (3) Rearing, reeling and spinning are taught at Government Silk Institute, Bhagalpur, and at Government Seed Supply and Research Station at Chaibassa, Spinning and reeling are taught at Hura (Purulia) and Anurapara (Santal Parganas).
- 36-39. Do not arise.
40. Some weavers twist their own thread.
41. The price of a seer of raw tasar now is Rs. 10-8. The price of a seer of twisted tasar silk is Rs. 13. Tasar thread is not boiled. The cocoons are hoiled in soda and the cloth in soap.
42. Nothing materially.
43. Not done.
44. Does not arise.
46. (i) Not known.
- (ii) About 20,000 seers of raw silk is produced annually.
47. Bihar produced about 3½ lakhs of rupees of tasar cocoons annually. About one-third is consumed in the province and the balance is exported to Nagpur, Orissa and Bengal. The merchants of Nagpur, Sambalpur and Bengal come to Bihar and buy the cocoons. Sometimes they buy through agent and in some cases the merchants of Bihar go to these places to sell their cocoons.
48. Yes.
- 49-54. Do not arise.
55. The price of Indian silk yarn is Rs. 6 per lb., mill spun silk Rs. 4 to Rs. 5 per lb., artificial silk 12 annas per lb. and staple fibre Rs. 2-8 per lb.
56. Superior reeled Japanese mulberry raw silk and reeled tasar are selling at Rs. 5 and Rs. 4 per lb. respectively whereas Indian mulberry raw silk and tasar sell at Rs. 2-8 and Rs. 6-8 respectively.
57. Imported raw silk superior to Indian silk in winding quality, uniformity, bone and lustre and whiteness. The imported silk is cheaper.
58. Not known.
59. Imported raw silk and tasar are now competing with Indian raw silk and tasar and noil is competing with hand spun eri.
60. It is spun in the Indian mills.
- 61 & 62. Not available.
63. First generation crosses always, yield 1½ times more silk than pure races.
65. Not available.
66. To improve the quality of reeled silk and to have a silk conditioning house for testing silk. Silk waste is being exported in less quantity. Some are being hand spun.
67. To England and United States. Decreasing in America and increasing in England.

	New York	and	London.
	1937-38.		1936-37.
	Rs. A. P.		Rs. A. P.
Export in America	7,685 1 0		11,432 13 6
Export in England	5,509 7 2		4,456 6 11

68. Not available.

69. (a) 100 per cent. tariff. A duty of 100 per cent. should be imposed again on imported raw silk whereas spun silk should be taxed 70 per cent. To relieve weavers who will be out of employment, plants for spun silk, artificial silk and staple fibre should be set up in India.

(c) 10 years for the present.

70. (a) In the beginning the textile industry will lose but it will make up later on (b). The handloom industry also will suffer for want of suitable raw materials but India will produce raw silk in increasing quantities; in course of time both the weavers and the rearers will be gainers. It is difficult to state whether other industries will be affected.

71. Price of raw silk Rs. 10-13. Hand twisting charges Rs. 2-8.

72. Many new rearers have begun to rear silkworms.

73. The Government are granting subsidies, distributing disease-free seeds and mulberry cuttings and deputing instructors to advise rational methods of rearing.

74. Yes.

Enclosure II.

HANDLOOM INDUSTRY.

Questionnaire for Local Governments.

11. Multivoltine silkworms are generally reared here. Very few rear univoltine. Rearing is generally done three times a year. From an ounce of eggs about 70,000 cocoons are obtained weighing 80 lbs. About 100 ounces are reared annually.

25. The breeders sell the cocoons to the reelers. They sell them at once. Poor as they are they cannot wait for higher price. The average price of cocoons for the last five years is as under:—

		Rs.	Rs.
1938	. . . . .	25	to 26
1937	. . . . .	20	„ 22
1936	. . . . .	18	„ 19
1935	. . . . .	16	„ 18
1934	. . . . .	15	„ 17

28. The initial cost for hand reeling equipment is about Rs. 60. This will last for about 12 years with occasional repairing. One reeler and one winder reels about ten chitaks or raw silk daily from about ten seers of green cocoons. The price of one seer of raw silk now is Rs. 9-8.

(5) Letter No. 21171, dated the 8th December, 1938, from the Director of Industries, Bihar, Patna.

I have the honour to return herewith the corrected copy of the record of the oral evidence* tendered by me before the Tariff Board on the 18th November, 1938. A note with the details of the cost of reeling tasar cocoons is also submitted as desired by the president of the Board.

Tasar rearing, reeling and weaving are domestic industries of some importance in Bihar, the home of tasar silkworms. It is difficult to estimate the number of rearers and the output of tasar cocoons in Bihar as statistics relating to these are not available. Late Mr. Maxwell Lefroy estimated the output of tasar cocoons in 1912-13 in the Singhbhum district to be 32,500 Kharis and the same in the remaining districts of Chota Nagpur at about 62,000 kharis. Thus the output of cocoons in 1912-13 was estimated at about 100,000 kharis. Since then tasar industry declined on account of the falling off in the demand for tasar fabrics which were replaced by spun silk fabrics woven out of imported yarn and subsequently by artificial and staple fibre goods which are not only cheaper but more attractive than the tasar silk cloth. In the absence of statistics and information that would help one to estimate at least approximately the output of tasar cocoons, I am unable to give an idea of the same to the Board. The reply given in paragraph 3 of the Sericultural Enquiry—General questionnaire—has on further verification been found to be incorrect.

The recent publications relating to rail and river borne trade in various commodities, published by the Director General of Commercial Intelligence and Statistics also do not give any information regarding the trade in tasar cocoons. I am, therefore, unable to furnish the Board with the correct figures relating to production in or export from this province of tasar cocoons.

2. Cost of producing 1 lb. of tasar silk from cocoons of medium size—

	Rs. A.
1. Cost of 640 cocoons (weighing about 12 lbs.) yielding 1 lb. of silk	4 0
2. Wages of reeling for 10 days at 3 annas per day (working hours 8 per day)	1 14
3. Cost of fuel	0 2
4. Cost of water . . . . .	...
5. Soil expenses . . . . .	...
6. Transport charges . . . . .	...
7. Contingencies . . . . .	...
8. Supervision . . . . .	...
Total	6 0
Less cost of 10 chitaks of silk waste	—0 10
Net cost of producing 1 lb. of silk	5 6
Interest . . . . .	...
Depreciation . . . . .	...
Profit on 1 lb. of silk	0 2
Total cost of producing 1 lb. of silk	5 8

3. The following qualities of silk cocoons are now sold in Bhagalpur markets at rates shown against each. These names denote the quality

and not the size of the cocoons. The fibre of these different qualities of tasar cocoons varies in fineness, colour and feel.

Names of cocoons.	Place of production.	Price per khari.
		Rs.
Mungia	Chaibasa	12
Laria or Daba	"	10
Bogai	"	8
Nanga	Giridih	4
Sarihan	Pakur	3 to 5
Jarhan	"	3
Palamau	Palamau	12

4. The number of silk weavers in the various district of Bihar were estimated at 3,027 in 1932. No later figures are at present available.

5. The amount of Dalkathia cess collected in respect of Kolhan forests comes to about Rs. 6,000 per year. The figures for other forests are not available.

6. In the manufacture of silk fabrics worth Rs. 15,849 and Rs. 13,194 which were exported to Europe and America in 1936-37 and 1937-38 respectively different classes of silks, viz., reeled and hand spun mulberry silk, machine-spun mulberry and hand spun and machine spun "eri" silk were used. Practically no tasar silk was used in the weaving of these goods. The total weight of the silk yarn used is estimated at about 795 lbs. and 660 lbs. respectively in the two years.

7. Efforts to introduce sericulture at Khunti in the District of Ranchi where climatic and soil conditions were found to be suitable for rearing silkworms were made about 12 years ago. Prior to this, the local Christian mission had also attempted to grow mulberry and to rear silkworms in their own compound. But these efforts, were not successful, although the aborigines had no scruples to rear silkworms and are ordinarily satisfied with low wages of 2 to 3 annas per day.

Bounties varying from Rs. 25 to Rs. 50 were paid to a few agriculturists in the year 1925 for the purchase of wire fencing and for digging wells and a total sum of Rs. 390-10 was distributed through the Sub-Divisional Officer of Khunti. As these agriculturists failed to take sufficient interest in maintaining the mulberry gardens and rearing of silkworms, Government discontinued the payment of bounties and started an experimental farm on four acres of land at Khunti in Ranchi district for the purpose of demonstrating the growing of mulberry and the rearing of silkworms on rational lines. As a result of these demonstration 9 persons started rearing mulberry silkworms and their cocoons were purchased by the Silk Institute, Bhagalpur. Even these few rearers gradually gave up the industry as they found the cultivation of lac more profitable in view of the then prevailing lac prices. After working the farm for about 7 years the farm was handed over to the owner of the land who after continuing the rearing for a year or so gave it up as unprofitable. The total expenditure incurred by Government on this experiment was Rs. 9,924.

21. Government of the United Provinces.

Letter No. 3764-XVIII-618, dated the 15th August, 1938, from the Secretary to the Government of the United Provinces, Industries Department, Lucknow.

With reference to your letter No. 510, dated May 14th, 1938, I am directed to forward herewith six copies of replies to the Board's questionnaire regarding the handloom weavers and to say that the position of weavers is now more or less the same as that mentioned in my letter No. 60 -1, dated February 1st, 1933.

2. In spite of the import on silk fabrics, imported goods specially from Japan continue to sell at even below the cost of production of Indian made silk goods. Cheap imported silk goods combined with the general tendency of the market for cheap goods has injured the ancient silk weaving industry of Benares; and in many cases weavers have started using imported staple fibre yarn instead of silk yarn. Cheap imported georgette is also being extensively used in Benares for embroidery work in place of the indigenous silk which is more expensive than the imported stuff. In order to help the silk weaving industry I am to suggest that the protective duty on silk fabrics should be enhanced from 50 to 75 per cent, *ad valorem* plus the surcharge specified in the Import Tariff Schedule of the Indian Tariff Act, 1934 (XXXII of 1934) for a period of five years with effect from April 1st, 1939.

3. As regards the duty on silk yarn, it is recognised that the silk reeling industry in the country as a whole may require encouragement and protection; it is, however, for consideration whether this should be given in the form of an enhancement of duty or of a subsidy to the reeler or manufacturer. This Government are not in a full possession of the facts and are therefore unable to say which form would be more suitable. It would however seem that unless an enhancement of duty is likely to lead to an immediate increase in the production of silk yarn in India, of good quality at a fair price, it would be preferable to give subsidies primarily to help in increasing efficiency; an increase in duty on silk yarn might injure the silk weaving industry, as handloom weavers are mostly using imported silk and staple fibre yarn at present, as it is much cheaper than the indigenous yarn.

Reply to Tariff Board Questionnaire on Sericulture (Handloom Industry).

1. (a) The following table gives the number of Handloom weavers engaged in weaving different types of fabrics:—

	No. of regular weavers.	No. of subsidiary weavers.	Total number of weavers.	Total number of helpers.	Total No. of weavers and helpers.
1. Cotton including art-silk	109,900	54,900	164,800	339,200	504,000
2. Silk	49,500	2,100	51,600	103,000	154,600

Separate figures for weavers of mixed fabrics cannot be given.

(b) There has been no appreciable difference in the number of pure silk weavers at the biggest weaving centre—Benares, but the number of spun silk weavers has gone down at many centres including the big centre of Mau. These weavers are now using staple fibre yarn as a substitute for spun silk. The exact number cannot be given.

2. With the exception of gold and silver thread and of about 5,500 lbs. of Kashmir raw silk all the requirements of the weavers in the United Provinces in raw silk, silk yarn, spun silk and artificial silk are met by imports from foreign countries mainly Japan and Italy and to a small extent from China. There are yarn dealers in almost all important weaving centres who keep a stock of these materials. They in their turn obtain

their supply from wholesale merchants at Benares, Calcutta, Bombay and Amritsar. Gold and silver thread consumed in Benares is all made locally. The price of the different materials at Benares on 11th June, 1938, was as follows:—

Yarn rates—11th June, 1938.

	Per bdl. Rs. A.	Per lb. Rs. A. P.
Spun Silk—		
210/2s Japan Spun Silk Kanto Grey	55 8	5 0 9
210/2s Japan Spun Silk Fuji Grey	44 0	4 0 0
210/2s Japan Spun Silk Kanuga Grey	57 0	5 2 11
210/2s Japan Spun Silk Toyo Grey	57 0	5 2 11
210/2s Japan Silk Spun XXX Blehd.	58 8	5 5 2
210/2s Japan Spun Silk SSS Blehd.	58 0	5 4 5
140/2s Italian Spun Silk Blehd.	54 0	4 14 7
120/2s Japan Silk Toyo Grey	53 8	4 13 10
2/60s Italian Silk Cordt. Saraswati Grey	53 8	4 13 10
2/60s Italian Silk Cordt. Horse Grey	8 8	4 4 0
2/75s Japan Tussar Fuji	40 0	3 10 3
2/120s Japan Tussar Fuji	41 0	3 11 8
2/140s Japan Tussar Fuji	42 0	3 13 2
Raw Silk—		
13/15s Japan Raw Silk White . . . . .	...	5 14 0
20/22s China Raw Silk White . . . . .	...	4 5 0
20/22s Japan Raw Silk White . . . . .	...	5 10 0
20/22s Japan Raw Silk Yellow . . . . .	...	5 9 0
13/15s Kashmir Silk Yellow Lotus . . . . .	...	6 8 0
18/22s Kashmir Silk Yellow Lotus . . . . .	...	6 8 0
24/28s Kashmir Silk Yellow Lotus . . . . .	...	6 12 0
45/55s Kashmir Silk Yellow Tulip . . . . .	...	6 4 0
90/110s Kashmir Silk Yellow Tulip . . . . .	...	5 12 0
Thrown Silk—		
13/15s Japan Katan . . . . .	...	7 0 0
13/15s Japan Georgette . . . . .	...	7 14 0
20/22s Japan Katan . . . . .	...	7 8 0
Art Silk—		
150s Art Silk Blehd. A	7 12	0 12 5
150s Japan Silk Dull	9 0	0 14 5
2/150s Art Silk	9 0	0 14 5
Staple Fibre—		
2/20s Staple Fibre Yarn	10 0	1 0 0
2/40s Staple Fibre Yarn	10 4	1 0 5
2/60s Staple Fibre Yarn	12 0	1 3 3
2/80s Staple Fibre Yarn	14 8	1 7 3
2/100s Staple Fibre Yarn	17 12	1 12 5
Gold Thread—		
1,200 yards in one oz.—From As. 12 to Rs. 1-4 per tola.		
Silver Thread—		
1,200 yards—one oz.—From As. 11 to Rs. 1 per tola.		

3. Staple fibre yarn is being largely used since last year. It is usually woven mixed with spun silk and dull artificial silk. It is usually mixed to the extent of 50 per cent. when mixed with dull artificial silk and up to 60 per cent. when mixed with spun silk. The price per lb. on 11th June, 1938, was as follows:—

	Per bdl.	Per lb.
	Rs. a.	Rs. a. p.
2/20s Staple Fibre Yarn	10 0	1 0 0
2/40s Staple Fibre Yarn	10 4	1 0 5
2/60s Staple Fibre Yarn	12 0	1 3 3
2/80s Staple Fibre Yarn	14 8	1 7 3
2/100s Staple Fibre Yarn	17 12	1 12 5

4. Staple fibre yarn is becoming very popular and at some of the centres like Man about 75 per cent. of the so-called "silk" fabric is made with staple fibre yarn. It is stronger than artificial silk and looks almost exactly like spun silk. It is therefore being increasingly used in place of spun silk because the present tendency of the market is for cheaper and still cheaper products. It is reported that that with a little improvement in its durability its use is going to increase and it will gradually oust spun silk.

5. (1) *Twisting*.—Twisted yarn or organzine is now imported from Japan and there is no need for the weaver to do any twisting. Before the advent of cheap organzine from Japan there were about 700 families in Benares doing this work for pure silk weavers. They have now taken to other jobs.

Winding.—Children and women folk of professional weavers do winding for the main weavers.

(2) *Boiling off*.—This operation is performed generally by boilers at Benares but at other centres weavers themselves do this work. In Benares too some weavers do not utilise the services of professional degummers.

(3) *Dyeing*.—Most of the silk weavers dye their own yarn but for difficult shades and for difficult processes they go to professional dyers. The number of professional dyers is very small in proportion to the number of weavers.

(4) *Doubling and preparing the warp*.—In Benares professional warpers do this work and now there is a growing tendency among the yarn merchants to sell ready-made warps. At other centres, warping is still done by weavers with the help of children and women folk.

6. There is no hard and fast rule for the use of various kinds of silk yarns as warp and weft. It all depends upon the quality of goods required to be produced. In the case of Benarsee Sarees generally organzine warp and raw silk weft are used. The following details of some of the fabrics may give a better idea in this respect:—

Saris and dupattas—

Warp	Thrown silk	Weft	Thrown silk.
"	" "	" "	Georgette.
"	" "	" "	Raw silk.
"	Spun silk	" "	Spun silk.
"	" "	" "	Staple.
"	" "	" "	Raw silk (Degummed):

Brocade—

Warp	Spun silk	Weft	Raw silk.
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Blouse pieces—

Warp	Katan	"	Raw silk.
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Pot-ka-than (used for Pyjamas and Lehngas)—

Warp	Katan	Weft	Raw silk.
"	Raw silk	"	Raw silk (Canton-China).

7. The position is substantially the same as at the time of the last Tariff Board enquiry. Yarn merchants and the cloth merchants between themselves control the silk industry. In many cases the yarn merchant is also the cloth merchant specially at the smaller centres. The yarn dealers and the cloth merchants do the financing indirectly, i.e., the yarn dealer supplies yarn on credit and the cloth merchant either supplies yarn or gives advances to purchase it. At big centres like Benares a third party known as the Karkhanadar comes in. He acts as the supervisor of weaving. He gets orders from merchants and gets them executed in his Karkhana or factory or by individual weavers under his influence. He is financed by merchants and in some cases is substantial enough to finance his own operations. The weaver is not in a very strong position and has to share his profits with the Karkhanadar and yarn merchant and at some centres like Mau also with the Dalal or the broker. Even those weavers who work independently have to depend upon the yarn dealer and the cloth merchant, because they have small resources and must sell their product as soon as it is finished so as to get more yarn for weaving. They, therefore, get rather unfavourable terms except during the marriage season when they know that the demand is great. At Benares, the biggest centre, the Karkhanadars are in a better position and many of them have become big merchants. Although it is a fact that the weavers do not get a fair deal under the existing system, it is rather difficult to suggest a better system unless there is education among the weavers. The best thing for them is to form Co-operative Societies for joint purchase of yarn and for joint marketing but in practice this system has been found to be very difficult. Efforts to organize Co-operative Societies of weavers have so far been only partially successful. The opening of the Government Handloom Emporium financed by the Government of India's Handloom grant has given new life to these Co-operative Societies. There is need for many more Societies and for the Emporium to expand its activities, but on account of practical difficulties due mainly to the ignorance of the weavers the progress is very slow indeed. It is essential to continue Government subsidy for a long period to enable a large number of weavers to be brought under the influence of co-operative organization.

8. The varieties of silk mentioned in the last Tariff Board Report are still generally produced. Pot-ke-thian, Safa or turban cloth and Sati borders may also be mentioned. The change noticed is the decrease in the use of expensive pure silk and gold thread fabrics and the increase in the popularity of staple fabrics and spun silk mixtures. Spun silk, Georgette, and Crepe imported from Japan have considerably affected the sale of *Gulbadan*, *Darvate* and shirtings. The georgettes and crepes have affected the sale of saris also. Japanese products are very cheap and embroidered saris of these materials compete with Benares products. As a matter of fact Indian market is flooded with cheap Japanese silks, all varieties of which compete with Indian products either directly or indirectly by way of substitution. Of late cheap French brocades have also made their appearance in the market as a competitor of Benarsee Khakhaves.

9. The total annual handloom production of goods made from the different types of yarn is as follows:—

- (1) *Raw and Thrown silk*.—1,960,000 yds. Gold and silver thread worth weighing 432,000 tolas was used along with these raw and thrown silk fabrics. Raw and thrown silks are used together, hence figures for them have been combined.
- (2) *Spun silk and staple fibre*.—5,100,000 yds. Separate figures for spun silk cannot be given for 1937 as staple fibre is now being used and passed on as spun silk. The current figure for spun silk will be about 2,600,000 yards.
- (3) *Artificial silk*.—30,000,000 yds.

10. The time taken by weavers to produce different articles depends upon the workmanship of each article. A weaver may take one day to produce a plain silk sari or may take one month to produce an all-over jacquard sari. The following will give an idea of the approximate time taken to produce each article:—

Name of article.	Time taken.
Spun silk sari	2 days (one piece).
Silk sari with gold thread workmanship	2 days to one month (one piece).
Dupattas	1 day to 15 days (once piece).
Brocades	7 days to 2 months.
Put-ka-than	4 days to 15 days (one piece).
Suitings and shirtings	1 day to 3 days (one piece 7 yds.).
Sari borders (6 to 12 borders at a time)	About one month.

11. Approximate quantity of material used in weaving some of the fabrics is as follows:—

Spun silk sari about 12 oz.

Spun silk sari mixed with staple about 1 lb.

Thrown and raw silk sari 6 yds. \times 45" about 1 lb. total weight.

Gold thread about 5 oz.

Warp about 7 oz.

Weft about 4 oz.

Dupattas 3 yds. \times 50" about 7 oz. or 8 oz. total weight.

Gold thread about 4 oz.

Silk about 4 oz.

Suitings and shirtings spun silks 7 yds. \times 54" about 1 to 1½ lb.

12. The length and breadth of the following finished articles are as follows. The price depends upon the material used and the workmanship:—

(1) Sari—length 5 yds., 6 yds., 8 yds., 9 yds.; breadth 45", 52"; price ranges from Rs. 5 to Rs. 150 a piece.

(2) Dupattas—length 2½ yds., 3 yds.; breadth 48", 57", 63", 72"; price Rs. 3 to Rs. 100.

(3) Brocade—length 3½ yds.; breadth 27", 36"; price Rs. 20 to Rs. 300.

(4) Blouse piece (full) 10 yds.—length 10 yds. full piece; breadth 45" or 52"; price Rs. 20 to Rs. 300.

(5) Suiting and shirtings—length 7 yds. width 54"; length 14 yds. width 28"; price Rs. 5 to Rs. 15.

13. The approximate value of the annual production of silk goods (excluding staple fibre and art silk goods) is about one crore and 10 lakhs, of which Benares alone accounts for one crore.

14. Spun silk is being used for the manufacture of all varieties of silk fabrics except for fine muslin silk and Benares gold thread saris. It is very common in suitings and shirtings, *dupattas* and *chaddars* and also in saris (without gold thread).

15. The weavers obtain their supplies of silk from silk yarn merchants, who get their supplies from the port towns. Kashmir silk is obtained by yarn merchants from the Government Depot at Srinagar. The weavers thus get it from middlemen merchants and not directly from reelers.

16. Merchants do supply yarn on credit to weavers. The common practice is to allow credit till the disposal of the finished goods from 10 days to a month, i.e., it depends on the normal time taken in finishing the warp of a particular type of fabric. The weaver is expected to sell his finished product and clear the account. The amount of credit depends upon the dealings of the weaver and also on his position, i.e., the number of looms he works. Yarn merchants do not charge any interest directly but make it up by charging higher price—As. 2 to As. 4 per lb. If there is an unusual delay interest is charged up to 12½ per cent.

17. All yarn merchants sell direct to weavers if required. There are small dealers who obtain their supplies from big wholesale dealers and they generally sell to weavers. The general practice is for the wholesale dealers to supply yarn to Karkhanadars and not to petty individual weavers who have to obtain their supplies from the small dealers. There are no merchants who are accredited agents of any yarn importers or flatures.

18. The only Indian silk yarn in the market in the United Provinces is Kashmir yarn. It is even, regular and good as regards shine, lustre and degumming as imported silk. Kashmir "Lotus" silk can well be compared with Japanese raw silk "D" quality and is stronger. Mysore silk is better in lustre and there is not much loss in degumming it but it is said to be weak. There is, however, very little Mysore yarn in use in Benares. There used to be a general complaint against Bengal silk because of the difficulties in re-reeling and degumming it. Bengal silk has now been completely ousted from the Benares market. Bengal silk was considered to be very superior in lustre and was largely used for weft. The yarn merchants and weavers prefer imported yarn because it is cheaper than Indian yarn and easier to manipulate but they believe that the quality of Indian silk yarn can be improved if modern flatures are established. They would gladly use Indian yarn because it would give their products the stamp of pure Swadeshi. Price is, however, the main obstacle and as long as it was cheaper to re-reel and twist the Indian silk yarn they preferred to do so rather than go in for imported orgauzine.

19. Silk yarn used here is not produced in the province and we cannot say what is the agency for sorting or grading of raw silk in other provinces. Proper grading and sorting of Indian silk will certainly increase its popularity provided always that the price is not higher than that of the imported material.

20. Yes. There is a system called "Katanti" under which silk is supplied to weavers by middlemen and the finished product is taken by them. Under this system a lump sum price is fixed per sari making an allowance for wages and wastage. The important condition is that the weight per sari as well as the texture of cloth is fixed and the weaver has to supply within a specified time. It is practically a system of getting work done on wages with this difference that the middleman does not do accounting for individual pieces.

21. We have no information whether the silk producing centres have taken steps to advertise their products and to avoid variations in the unit of weight. No such efforts have so far been noticed in the silk consuming centres in the province. It is, however, doubtful whether the uniformity in the unit of weight would make any difference as long as the price remains high.

22. For the last two or three years Bengal silk has been practically ousted from the United Provinces markets. It is said that there has not been any improvement in the re-reeling methods in Bengal. The previous

experience was that Bengal silk was difficult to wind and there was great loss in degumming it but Kashmir silk is as good as imported one in respect of winding and degumming. Some difficulty is felt by weavers in winding Mysore silk but so little of it is consumed in Benares market that no definite opinion can be given about it.

23. Artificial silk is replacing raw silk only to this extent that poorer people who used to purchase some sort of cheap silk material on marriage occasions though with difficulty are now content with artificial silk products or artificial and staple fibre products but this competition is not felt so much in the case of raw silk as in the case of spun silk. As a matter of fact artificial silk competes more with cotton and spun silk than with silk.

24. The position at present is the same as in 1933 as regards competition between spun silk and raw silk. Spun silk is cheaper, can be more easily manipulated and in the case of cheaper varieties is more durable also. It is invariably used in the production of snittings, shirtings and *Chaddars* and has almost ousted Indian silk for the manufacture of these products even in the provinces where silk is produced. The present rate of duty has not been sufficient to protect the Indian industry nor has it encouraged the manufacture of spun silk in India. In spite of the protective duty the import of raw silk has not shown any decrease during the last three years and the decrease in other varieties of silk yarn has not been very appreciable although there has been some decrease in others. Decrease in other varieties is due to the increase in the imports of staple fibre and artificial silk yarn which are replacing spun silk to a considerable extent.

25. It has not been possible to get actual figures showing variations in cost and sale prices and weavers wages for the principal silk fabrics of Benares as no statistics have been maintained. Our efforts to get them from merchants and Karkhanadars have not been successful. The general opinion is that prices and wages have been growing down during the last 6 years due mainly to the fall in price of yarn and the keen competition by imported fabrics competing indirectly with Benares goods by substitution. The merchants report that prices have been going down by about 5 per cent. every year in the case of standard goods. No such estimated figures are available in the case of cheaper Benarsi saris. The fall was very great—about 50 per cent. in the case of most average quality goods—after 1931 and this 5 per cent. per year fall is for the period after 1933, i.e., after this great fall in prices.

Figures for certain typical silk fabrics of the next biggest centre—Mau—are given in the statement attached. This centre is using cheap quality raw silk and staple fibre yarn for the bulk of its products.

26. The present duties on the different types of fabrics is not considered to be enough although they have proved beneficial to some extent especially since the recent restrictions on fents. The prices of silk yarn are lower but those of imported Georgettes and Crepes are very much lower. Sales of Benares sarees have been considerably affected by the import of these cheap Georgettes which are used for making embroidered sarees. It was noted in the very first year after the imposition of protective duties that raw silk prices and imports had not been restricted by them.

The Japanese exporters have resorted to all methods for evading the duties and the problem of fents caused anxiety. The duty on fents and their sizes have been altered but even now these fents are competing adversely with handloom goods though to a comparatively lesser extent. The hawkers and cut-piece dealers are selling these fents at a very much lower rate and these materials are largely bought by readymade garment makers and householders. At present new types of art silk fabrics are competing seriously with handloom products and duties on them as well as on all mixtures like "Satinettes" should be enhanced. It will, however, not

be enough to enhance the duty on particular varieties of pure silk fabrics. Duty on all silk, Art silk and staple fibre fabrics should be considerably enhanced. One of the Japanese fabrics competing with the United Provinces handloom fabrics is Satinette or "Ghalta" used largely in Calico Printing Industry. The sale price of our "Ghalta", the Emporium at Lucknow which charges very little profit is As. 14-6 per yard while the similar Japanese product is selling at Lucknow at As. 10-6 per yard and the bulk of the printed *jards* and *lihaf*s are of imported "Ghalta". It is very doubtful if Japan will continue to give the benefit of low prices of yarn to handloom weavers. She is trying to crush the indigenous sericulture industry so that she could control prices in future. India is helpless at present and Japan has been able to raise her prices at intervals because she is now practically certain of her position as against indigenous producers. The duty on all goods should be substantially enhanced on the lines of the recommendations of the last Tariff Board.

27. No new factories have been started for the production of silk goods as a result of protection but of late more cotton handloom weavers have taken to spun silk, artificial silk and staple fibre weaving and centres like Etawah, Bisalpur District, Pilibhit, etc., have assumed importance in the manufacture of suitings and shirtings. They all use imported material as Indian spun silk, artificial and staple fibre yarn are not in the market.

28. The approximate cost of some of the fabrics under the following heads is as detailed below:—

(1) A saree piece 5 yds. x 45" (Warp and weft both thrown silk)—

	Weight.	Rate.	Amount.
		Rs. A.	Rs. A. P.
Raw materials silk	18 tolas degummed; actual weight 21½ tolas.	14 6 seer.	3 13 0
Gold thread	10 tolas	0 11 per tola.	6 14 0
Winding charges	9 "	1 4 per seer.	0 2 3
Warping charges	7 "	1 8 per seer.	0 2 0
Cost of dyeing . . . . .	....	..	0 2 0
Degumming charges . . . . .	....	0 8 per seer.	0 2 9
Weavers' wages. . . . .	....	..	5 8 0
Finishing charges . . . . .	....	...	0 8 0
Cost price per sari . . . . .		..	17 4 0

A weaver assisted by two boys will take about seven days to finish a saree of the above-mentioned quality. Out of the total amount earned by a weaver, one boy (Joria) will get Rs. 1-8 and the other (Doria) will get Rs. 1-4 while the weaver (Karigur) himself will earn Rs. 2-12, i.e., about As. 3-6, As. 2-10 and As. 6-3 per day respectively.

(2) A Dupatta piece 3 yds. x 45" (Warp and weft both thrown silk)—

	Weight.	Rate.	Amount.
		Rs. A. P.	Rs. A. P.
Raw materials silk	12 tolas degummed; actual weight 16 tolas.	14 5 9 per seer.	2 14 0
Gold thread	6½ tolas	0 12 0 per tola.	4 11 0
Winding charges	7½ „	1 4 0 per seer.	0 2 0
Warping charges	4½ „	1 8 0 per seer.	0 1 6
Cost of dyeing . . . . .	....	..	0 1 6
Degumming charges . . . .	....	0 8 0 per seer.	0 1 0
Finishing charges . . . . .	....	..	0 5 0
Weavers' wages . . . . .	....	..	3 12 0
	Cost price per dupatta	..	12 0 0

A weaver assisted by two boys takes about five days to finish this work; and the total amount earned by them will be Rs. 3-12.

(3) Pot-ka-than 4 yds. x 36" (Warp—thrown silk; weft—raw silk carton)—

	Weight.	Rate.	Amount.
		Rs. A. P.	Rs. A. P.
Raw materials—	वस्त्रमय नयन		
Thrown silk	6 tolas degummed; actual weight 8 tolas.	14 5 9 per seer.	1 7 0
Raw silk	9 tolas degummed; actual 12 tolas.	8 13 0	1 5 3
Gold thread	7½ tolas	0 10 0 per tola.	4 8 6
Winding and doubling	12 „	2 8 0 per seer.	0 4 0
Warping charges	6 „	1 8 0	0 1 6
Cost of dyeing . . . . .	....	..	0 1 9
Degumming charges . . . . .	....	..	0 1 9
Weavers' wages . . . . .	....	..	3 14 0
Finishing charges . . . . .	....	..	0 5 0
	Cost price per than .	..	11 0 0

A weaver assisted by two boys takes about five days to finish this work; and the total amount earned by them will be Rs. 3-14.

Both systems of payment are prevalent, i.e., they are engaged either on piece wage system or are paid monthly. Generally Karigars are engaged on piece wages while boys on monthly wages.

29. Co-operative Societies render assistance in every way. They advance money on the finished product (e.g., Tanda Co-operative Society) and also assist weavers to obtain supplies of raw materials and other requisities, secure orders for them and help generally in marketing by sending out commercial travellers and maintaining a sale depôt. There are three centres (Barabanki, Tanda and Snadila) where this work has been very well developed but there are societies at several other places also.

30. The manufactured articles are sold at the place of weaving as far as the actual weavers are concerned, i.e., they sell their products to the local *Satticalas* or commission agents or local wholesale or retail merchants. The Karkhanadars and some well-to-do weavers do carry on marketing independently also but they usually depend on the local commission agents or wholesale merchants and rarely have to despatch goods to other centres on their own. All outstation and wholesale business is in the hands of big merchants and *Satticalas* or commission agents. The fabrics manufactured in the United Provinces are sold in every part of India largely in Bengal, Madras, Bihar and Bombay. The artistic fabrics of Benares have a big market in overseas countries also specially England and United States of America. The Emporium has been able to push even the ordinary silk and silk mixed fabrics in important overseas markets. The wholesale merchants and *Satticalas* usually sell goods f.o.r. place of manufacture and the buyer has to incur the expenditure on freight and other items. Inclusive rates are quoted in very rare cases because the outstation buyers themselves prefer that goods should be sold to them at the lowest wholesale price prevailing at the centre.

31. The demand for natural silk has not shown any tendency towards increase due mainly to the large imports of artificial silk and staple fabric yarn.

32. The main source of supply of raw silk is Japan. China also exports a considerable quantity. About 4 per cent. only of the total consumption of raw silk comes from Kashmir. The approximate consumption of raw silk at the various centres in the province comes to about 1,32,000 lbs. while that of organzine or thrown silk to about 1,48,000 lbs.

33. As is evident from the answer to question above there has not been any turnover from imported to indigenous silk as a result of protection. In fact Indian silk has been more or less completely ousted from the United Provinces weaving centres. Whatever little of Kashmir yarn that is consumed is due to the Swedeshi movement as some pure swedeshi enthusiasts demand fabrics made of indigenous material.

34. There has been no other effect of existing protection on handloom weavers but it is being felt that the handloom weavers should depend more on indigenous raw materials. Japan sends out poorer art silk yarn and utilises the better material herself. She can control the prices of this inferior material as there is state control of exports which keeps it proportionately higher so that the United Provinces handloom products prove to be comparatively expensive in respect of durability, finish and texture. Further there is a talk of boycott of Japanese goods. If this materialises it will affect handloom weavers most as they will not have indigenous raw material and in cotton the mill competition will be very keen. The best help to handloom weavers would be for Government to encourage the manufacture of art silk and staple fibre yarn in the country and impose a heavy duty on imports of yarn and fabrics made of these materials.

Statement, vide Question 25.

Name of fabrics.	Details of cost.	1934.	1935.	1936.	1937.	1938.
		Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.
Raw silk than—raw silk warp and weft.	Cost and sale price.	3 4	3 0	2 12	2 12	2 12
	Weavers' wages	1 8	1 0	0 12	0 12	0 12
Doga b i a—check with fine cotton and raw silk warp and weft.	Cost and sale price.	3 12	3 12	3 12	3 12	3 12
	Weavers' wages	1 4	1 4	1 4	1 4	1 4
Crep e sarce mixture of five raw silk with stripes of art silk.	Cost and sale price.	2 8	2 8	2 6	2 4	2 4
	Weavers' wages	0 12	0 12	0 11	0 10	0 10
Monia than—check with warp and weft of raw silk and few strings of mercerised cotton for check.	Cost and sale price.	3 8	3 8	3 10	3 12	4 0
	Weavers' wages	1 2	1 2	1 4	1 4	1 4

NOTE.—At Mau the goods are sold to customers at the same price at which they are purchased from the weavers or Dalals. Hence the cost and selling prices are the same. The dealer charges his commission at 2 per cent. from the customers on the total cost of goods sold.

22. Government of the Central Provinces and Berar.

(1) Letter No. 2403-2165-VII, dated the 25th July, 1938, from the Secretary to Government, Central Provinces and Berar, Nagpur.

Subject:—SERICULTURAL INDUSTRY—QUESTIONNAIRE FOR SILK AND ARTIFICIAL SILK GOODS MANUFACTURERS.

I am directed to refer to your letter No. 639, dated the 27th June, 1938, on the above subject and to say that there are no mills in this province mainly engaged in the manufacture of silk and artificial silk goods.

(2) Letter No. 2710-2218-VII, dated the 20th August, 1938, from the Secretary to Government, Central Provinces and Berar, Commerce and Industries Department, Nagpur.

Subject:—SERICULTURAL ENQUIRY.

I am directed by the Governor of the Central Provinces and Berar to refer to your letters noted below on the subject mentioned above and in reply to state as follows:—

- (1) No. 510, dated the 14th May, 1938.
- (2) No. 544, dated the 24th May, 1938.
- (3) No. 613, dated the 17th June, 1938.

2. *Questionnaire regarding handloom Industry.*—Copies of the Questionnaire were supplied to the following six representatives of the handloom Industry in this province with instructions to forward their replies to you direct:—

- (1) Mr. Rambhau Rahate, Silk Merchant Reshim Wali, Itwari, Nagpur City.
- (2) Mr. Beharilal Lachhmandas, Silk Merchant Reshim Wali, Itwari, Nagpur City.
- (3) Mr. Nagindas Fulchand, Silk Merchant Reshim Wali, Itwari, Nagpur City.
- (4) Mr. Ramprasad Mathurdas, Silk Merchant Reshim Wali, Itwari, Nagpur City.
- (5) Mr. Raghunathdas Motdhare, Silk Merchant Reshim Wali, Itwari, Nagpur City.
- (6) Mr. M. Joshi, Silk Merchant Reshim Wali, Itwari, Nagpur City.

A copy (with 6 spare copies) of a note prepared by the Director of Industries, Central Provinces and Berar, on the questionnaire is enclosed.

3. *Question regarding Sericultural Industry.*—There is no Sericultural Industry in this province and as such the Provincial Government is not in a position to reply to this questionnaire.

4. *Questionnaire for importers and traders.*—Copies of the questionnaire were supplied to the representatives mentioned in paragraph 2 above. Many of the questions in this questionnaire are the same as in the questionnaire regarding the handloom industry and are covered by note of the Director of Industries.

(*Handloom Industry*).

Replies to the questionnaire:—

1. (a) Total number of handloom weavers 73,338—

- (i) About 10 weave pure silk material occasionally.
- (ii) 9,500 weave cotton and silk mixed goods.
- (iii) 59,617 weave cotton goods only.

The remaining are wool weavers. One person is taken per loom. Dependants or assistants are not included in the above number.

- (b) There has been increase in the total since 1st April 1934.

2. Weavers obtain their raw materials from the local dealers. 95 per cent. of raw silk, the whole quantity of spun silk and artificial silk, and 5 per cent. of gold thread are imported. 5 per cent. of raw silk and 95 per cent. of gold thread are of Indian manufacture. The present prices of the raw materials are:—

Raw silk Japanese—Rs. 5-4 to Rs. 5-11 per lb.

Raw silk Chinese—Rs. 4-5 to Rs. 4-9 per lb.

Raw silk Kashmiri—Rs. 5-10 per lb.

Silk yarn (degummed and dyed) Rs. 8-4 to Rs. 9-4 per lb.

Spun silk (degummed and dyed)—Rs. 4-12 to Rs. 5-8 per lb.

Artificial silk (degummed and dyed)—As. 14-6 to As. 15 per lb.

Gold thread Indian—Rs. 14 to Rs. 22 per bundle of 21 tolas.

Gold thread German Rs. 9 to Rs. 10 per bundle.

3. Staple fibre yarn is not used by weavers in the manufacture of silk goods. This yarn is of Japanese manufacture and is obtained by weavers from local merchants. Its present price is Rs. 1-4 to Rs. 1-10 per lb. according to the count of yarn.

4. Staple fibre yarn is not likely to oust raw silk. Market estimation is that the use of staple fibre yarn will decrease gradually.

5. About 10 to 15 per cent. of the weavers themselves perform the operations stated in the question. The rest get them done by other agency.

6. Mulberry silk is used for warp. For weft, cotton yarn is used.

7. The present position with regard to the organisation of the industry is the same as it was found by the last Tariff Board. Weavers do not get a fair deal under this system. The suggestion for this is that co-operative organisations should take up the work and the Indian raw silk producers who get protection by the import duty on foreign silk should render assistance and facilities to these co-operative organisations in the matter of supplying them with raw silk at cheap rates.

8. Sarees and dhoties (dupattas) were the varieties of silk goods which were woven at the time of the last Tariff Board and they are still woven in this Province. These varieties do not compete directly with the imported piece-goods. But other varieties in sarees and dhoties imported or manufactured in India are sold in larger quantities owing to their cheapness and the sale of hand-woven costlier silk varieties is affected thereby. The competition is keen in cheaper qualities of goods.

9. The total approximate handloom production per year of varieties in which raw silk is used is given below:—

- (i) Sarees with silk warp, silk and gold thread border with and cotton weft 15,000 pieces of 9 yards each.
- (ii) Sarees with silk and cotton warp, silk border with or without gold thread and cotton weft 72,000 pieces of 9 yards each.
- (iii) Sarees with cotton warp, silk border with or without gold thread and cotton weft 350,000 pieces of 9 yards each.
- (iv) Dhoties with cotton warp, silk border with or without gold thread and cotton weft 135,000 pieces of 10 yards each.

NOTE.—In the first three varieties khan ghadis or blouse pieces are also woven. A khan ghadi of 8 khans or blouse pieces is $4\frac{1}{2}$ yards. In the fourth variety uparnas or dupattas are woven. A pair of uparna or dupattas is 6 yards long when these varieties are woven the production of the number of pieces is proportionately more. Silk yarn (degummed and dyed silk) is used for cross borders in the above first three varieties and gold thread is used for borders. Their production is thus given in the above figures. Spun silk is occasionally used for weaving shirting and coating material and its consumption is negligible. Very little of artificial silk is used and that too for figuring in mercerised yarn borders.

10. The number of days taken by a weaver to produce a piece of the four varieties stated in reply (9) above are $5\frac{1}{2}$, $4\frac{1}{2}$, $3\frac{1}{2}$, and $5\frac{1}{2}$ days respectively. This includes the time taken for the preparation of preliminary operations.

11. Mulberry silk is used for weaving the above varieties. The average quantity of raw silk required to weave a piece of the four varieties stated in reply (9) is 22, 9, 6 and 5 tolas respectively.

12. Dimensions of the varieties given in reply (9) and the approximate price per piece is given below:—

Variety—	Rs. a.
(i) 9 yards \times 50"	11 8
(ii) 9 yards \times 50"	7 8
(iii) 9 yards \times 50"	6 0
(iv) 10 yards \times 52"	7 8

13. Approximate value of the total annual production of silk goods is Rs. 38,25,000.

14. The use of spun silk is restricted to occasional weaving of shirting and coating material only.

15. Weavers obtain their silk supply from local dealers. There are no silk reelers in this province.

16. Merchants supply silk on credit to a few weavers. Credit given up to about Rs. 25 and for about a month. Silk business is mostly done on cash.

17. Silk merchants sell direct to weavers as well as through retailers.

18. The quality of Kashmere silk compares favourably with some of the imported silk. The quality of Bengal has not improved. Mysore silk is not sold in this Province. Merchants consider that if Indian silk as good as the present Kashmere silk is made available in the local market at prices of the imported silk it would be used by weavers.

19. There are no reelers and no sorting or grading is done in this Province. If sorting and grading is done weavers would take advantage of it. The main factor encouraging increased consumption would however be the price at which it is sold to weavers.

20. There is no general system whereby silk is supplied to weavers by middlemen in return of finished goods. Some dealers in handloom finished goods supply silk and other raw materials to weavers and get woven from them the required varieties. No special conditions are imposed under this system. Price of the finished article of the required variety is fixed and the value of the raw materials supplied to the weaver is deducted from the cost of the woven pieces when he brings them.

21. No efforts appear to have been made to remedy the defects stated in this question.

22. There has been an improvement in the methods of re-reeling in the case of Kashmere silk but not in the case of other silk.

23. Artificial silk is not used in varieties in which raw silk is used. It is used in combination with mercerised yarn for borders where raw silk was formerly used and the proportion of artificial silk in this is not much. But it is the mercerised yarn combined with artificial silk which is replacing the raw silk to a marked degree.

24. Very little spun silk is used in this province and it is not a competitor of raw silk. Raw silk is not produced in this province and it is difficult to say how far the present duty protects the Indian product.

25. Statement giving the information asked for is given below:—

Variety (i) Sarces (9 yards x 50") with silk warp, silk and gold thread border and cotton weft.

Year.	Cost price.		Sale price.		Weavers' wages.	
	Rs.	A.	Rs.	A.	Rs.	A.
1934	.	.	10	0	18	0
1935	.	.	10	0	16	0
1936	.	.	9	8	15	0
1937	.	.	9	0	13	0
1938	.	.	8	0	11	8

Variety (ii) Sarces (9 yards x 50") with silk and cotton warp, silk border with or without gold thread and cotton weft.

Year.	Cost price.		Sale price.		Weavers' wages.	
	Rs.	A.	Rs.	A.	Rs.	A.
1934	.	.	6	0	11	0
1935	.	.	6	0	10	0
1936	.	.	5	8	9	0
1937	.	.	5	4	8	0
1938	.	.	5	4	7	8

Variety (iii) Sarees (9 yards x 50") with cotton warp, silk border with or without gold thread and cotton weft.

Year.	Cost price.		Sale price.		Weavers' wages.	
	Rs. A.		Rs. A.		Rs. A.	
1934	.	5 8	.	10 0	.	4 8
1935	.	5 8	.	9 0	.	3 8
1936	.	5 0	.	8 0	.	3 0
1937	.	4 8	.	7 0	.	2 8
1938	.	4 4	.	6 0	.	1 12

Variety (iv) Dhoties (10 yards x 52") with cotton warp, silk border with or without gold thread and cotton weft.

Year.	Cost price.		Sale price.		Weavers' wages.	
	Rs. A.		Rs. A.		Rs. A.	
1934	.	6 0	.	12 0	.	6 0
1935	.	6 0	.	11 0	.	5 0
1936	.	5 8	.	9 8	.	4 0
1937	.	5 0	.	8 8	.	3 8
1938	.	5 0	.	7 8	.	2 8

26. The handloom silk varieties produced in this province, i.e., sarees and dhoties, do not come much in competition with imported silk or artificial silk goods, and the import duty on these goods does not help the handloom weavers of this province appreciably. The real competition which their varieties have to face, is with the cheap cotton and mercerised goods produced in Indian mills, small power loom factories and cottage power loom weavers. It is against these goods that the handloom weaver needs protection.

27. No factories for the production of silk goods have come into existence as a result of protection to the sericultural industry.

28. The approximate cost of manufacture of typical articles of silk cloth (stated in reply 9 above) is given below:—

	Variety I. Sarees silk warp, silk border with gold thread and cotton weft.			Variety II. Sarees silk and cotton warp, silk border with gold thread and cotton weft.			Variety III. Sarees cotton warp and silk border with cotton weft with gold thread.			Variety IV. Dhoties cotton warp, silk border with gold thread and cotton weft.		
	Rs.	A.	P.	Rs.	A.		Rs.	A.		Rs.	A.	
(1) Raw materials	6	8	0	4	0		3	6		4	6	
(2) Twisting and winding charges	0	10	6	0	10		0	5		0	5	
(3) Dyeing charges	0	11	6	0	8		0	7		0	3	
(4) Weaving charges	2	8	0	1	8		1	4		1	12	
(5) Cost of labour	1	0	0	0	12		0	8		0	12	
(6) Other charges	0	2	0	0	2		0	2		0	2	
Total	11	8	0	7	8		6	0		7	8	

Weavers do not get payment per day or per piece. They weave and sell the material in the market and the selling price of the piece *minus* the cost of raw materials and other expense they have to incur, determines their weaving and other labour charges. They vary between six to twelve annas per day depending on the kind of material and the demand for it in the market.

29. The Central Provinces and Berar Weavers' Co-operative Society which is financed from the Government of India grant for the development of the handloom industry supplies to its members at Nagpur raw materials on credit and gets woven from them the required cloth on payment of wages on piece work. Marketing of this cloth is arranged by the society. Branch or affiliated societies of the above society, at other places sell raw materials to weavers on cash at as cheap rates as possible.

30. Weavers sell their materials in local or neighbouring markets and have not to incur any charges on transporting their goods.

31. The demand for natural silk is decreasing.

32. The present sources of supply of raw silk are Japan, China and to a small extent Kashmir. Nagpur is the principal market for the consumption of raw silk and next to it is Burhanpur. The approximate amount of consumption of silk in Nagpur market is 85,000 lbs. of raw silk and 3,200 lbs. of degummed and dyed silk valued at Rs. 4,67,500 and Rs. 27,000 respectively. The approximate consumption of silk in Burhanpur market is of 9,000 lbs. valued at Rs. 49,000.

33. There has been no appreciable turn-over from imported indigenous silk as a result of protection.

34. This province does not produce any mulberry silk at present, though considerable quantity of raw silk is used by its handloom weavers. The Province is interested in the industry not as a producer but as a consumer of raw silk. As stated in reply (2), 85 per cent. of the raw silk used in the province is imported and any protection to the Indian Sericultural industry in the way of import duty would result in the increased cost of raw silk and consequently in the increased cost of production. Statement given under reply 25 will show that the prices of the handloom silk products went down considerably during the last five years and the fall in the earning of the weaver has been still out of proportion. As pointed out in reply 26, even the import duty on silk manufactures has not proved helpful to the handloom weavers in improving their condition. These facts indicate that the hand weaver is not likely to get any increased price for his article even though the price of the raw silk would go up as a result of the import duty. The burden of the import duty would thus fall not on the consumer but on the handloom weaver which he is unable to bear in his depressed condition. Protection to the Indian Sericultural industry is not objected to but any protection in the way of import duty should be accompanied by affording direct assistance and facilities to the handloom weavers in enabling them to obtain their supplies of raw materials at cheap rates and market their out-put at prices which would leave for them a fair margin of wages for their labour. Then only they would be able to use more of Indian raw silk which is the sole object of giving protection to that industry.

(3) *Demi-official letter No. 1187, dated the 19th October, 1938, from N. J. Broughton, Esq., C.S.I., C.I.E., I.C.S., Member-Secretary, Tariff Board, to G. S. Bhalja, Esq., I.C.S., Secretary to the Government of Central Provinces, Local Self-Government Department, Nagpur.*

Would you kindly refer to your letter No. 2710-2218-VII, dated the 20th August, 1938, regarding the sericultural enquiry now being undertaken by the Tariff Board? In paragraph 3 it is stated that there is no sericultural industry in the Central Provinces. Are we correct in assuming that the tussar silk industry in the Province has died out in the last 5 years? We

want to give in our report statistics in the form given in Tables XV and XVI in Chapter II of the Tariff Board report on the same subject which was published in 1933. If any information is available please give it as soon as possible as the enquiry is now in its last stages.

- (4) *Demi-official No. 4730-3048-VII, dated the 19th November, 1938, from G. S. Bhalja, Esq., I.C.S., Secretary to the Government of the Central Provinces, Nagpur, to N. J. Roughton, Esq., C.S.I., C.I.E., I.C.S., Member-Secretary, Tariff Board.*

I am desired to refer to your demi-official letter No. 1187, dated the 19th October, 1938, regarding sericultural enquiry, and to say that the questionnaire of the Tariff Board was understood by the Director of Industries to refer to the mulberry silk industry which does not exist in this province. The mistake is regretted. The tasar industry of the province is, of course, important. The present position of the industry is practically the same as it was five years ago. No recent statistics have been collected and the information given in tables XV and XVI in Chapter II of the Tariff Board Report of 1933 may be taken to represent the present position of the industry.

- (5) *Demi-official letter No. 1287, dated the 25th November, 1938, from N. J. Roughton, Esq., C.S.I., C.I.E., I.C.S., Member-Secretary, Tariff Board, to G. S. Bhalja, Esq., I.C.S., Secretary to the Government of Central Provinces, Commerce and Industry Department, Nagpur.*

Your letter No. 4730-3048-VII, dated the 19th November, 1938. The Board notes that the Government of the Central Provinces consider the Tasar Silk Industry to be an important one, but then when you go on to say that the figures submitted on the last occasion still hold good, it requires fuller explanation. The Board wants to have a general idea of the progress made by this industry in your Province during the last five years and the views of your Government with regard to the future of this industry, especially as we understand that the Provincial Government have been able to obtain a grant of Rs. 2,000 for 1938-39 from the Imperial Sericultural Committee. As the time at the disposal of the Board is short, a very early reply is solicited.

- (6) *Demi-official No. 6000-5120-A-VII, dated the 19th December, 1938, from G. S. Bhalja, Esq., I.C.S., Secretary to the Government of the Central Provinces, to N. J. Roughton, Esq., C.S.I., C.I.E., I.C.S., Member-Secretary, Tariff Board.*

Will you kindly refer to your demi-official letter No. 1287, dated the 25th November, 1938, regarding sericultural enquiry? The Director of Industries reports that general enquiries made by him show that the number of tasar silk rearers and weavers practically remained the same during the past five years.

2. The scheme which has recently been undertaken with the help of the Government of India grant aims at improving the tasar industry by distribution to rearers of improved varieties of seed cocoons obtained from the neighbouring provinces. A copy of the scheme is enclosed for the information of the Tariff Board.

3. Another scheme which relates to the introduction of the mulberry silk industry in this province has recently been put into operation and is being financed at present out of the provincial revenues. A copy of this scheme is also attached. Although mulberry silk is an innovation in the province, it is hoped that in the areas where the climate is suitable it may serve as an industry subsidiary to agriculture.

Enclosure I.

Scheme for the development of the tasar industry in the Central Provinces and Berar.

The scheme for the development of the tasar industry in this province mainly consists of production of healthy disease free silk worm eggs of selected varieties and supply them to rearers for rearing. A tasar supply and research station will be opened for this purpose at Warsa near Armori in Chanda district which is an important tasar silk producing district in the province. A tasar assistant will be in charge of this station who will work under the direction of the Textile Expert of the Industries Department. Rearing of tasar worms of the selected varieties for the production of seed will be done by rearers engaged by the station. Parent moths will be examined for their disease free condition and the eggs will be supplied to the rearers through the fieldmen who will also supervise the actual rearing done by them. The work of production and supply of eggs to the rearers is already being done by the Industries Department and this will be expanded under the proposed scheme. Side by side with the production and supply of seed, experimental and research work with regard to the general improvement of the breed, domestication or semi-domestication of the tasar silk worms and introduction of improved appliances for reeling of silk will also be undertaken by the proposed supply and research station.

2. Subject to the approval of the scheme, the work will be started from September 1938 which is the beginning of the regular season for tasar silk worms rearing. The staff required for the proposed supply and research station is given below. The estimate of expenditure is calculated for the remaining six months of the year.

	Rs.
(a) Payment of establishment—	
Pay of Tasar Assistant at Rs. 60 per mensem Rs. 60 × 6	360
Pay of two fieldmen at Rs. 25 per mensem Rs. 25 × 2 × 6	300
Pay of four rearers at Rs. 10 per mensem Rs. 10 × 4 × 6	240
	<hr/>
	900
(b) Contingencies and travelling allowance—	
House rent and other contingent expense	200
Purchase of tasar eggs and seed cocoons	200
Purchase of microscope and apparatus	500
Travelling allowance	200
	<hr/>
	1,100
Total	2,000

Enclosure II.

Scheme relating to the introduction of the mulberry silk industry in the Central Provinces and Berar.

The experiment recently carried out on a small scale at Nagpur to test if the sericulture industry can be introduced in the Province have not only yielded promising results, but have also evoked public interest. Sericulture, for all practical purposes, will be a new industry in the province. The best approach to the problem of development of a new industry would be extensive propaganda in places suitable for the introduction of the industry combined

with practical demonstration and accordingly it is proposed that Government should open demonstration stations in six different places in the province, viz., Nagpur, Chikalda Pendra, Saugor, Betul and Seoni. The climate of these places is temperate so as to ensure the success of mulberry plantation and worm rearing. The Nagpur station will operate as a central station for experimental and research work, supply disease-free cellular silk worm eggs to the people and reel silk from cocoons which will be purchased from rearers. Chikalda with its cooler climate will be a sub-station of the Nagpur station during the hot weather. Each plantation will be in charge of watchman.

2. Disease-free eggs will be supplied to the rearers who will rear silk worm eggs upto the cocoon stage. The central station will then purchase the cocoons, reel them into silk and sell it. The demonstration stations will teach the rearers the proper method of rearing. Rearers will have to raise their own plantation. Instructions in mulberry plantation will be given by the demonstration stations. The industry is not intended to supply a whole-time profession but is suitable as a subsidiary or part-time occupation for supplementing the income from agriculture.

3. Side by side, it is proposed to take up work in sericulture at the demonstration stations. Eri worms thrive on castor leaves and are reared in Bihar and Assam. The yarn is not reeled but spun by hand and is, therefore, coarse and suitable for chadars and rough suitings. Commercially it is not so important as sericulture, but it will be useful to people who grow castor for seed and can thus utilize the leaves for rearing eri worm as a by-occupation. This work will entail no extra expense on the sericulture stations.

4. The following is an estimate of expenditure on the scheme:—

	Rs.
(1) Expense in preparing 6 mulberry plantations at six centres including fencing preparing the ground, cost of manure and cuttings, planting and maintenance for one year at Rs. 300 per plantation (Rs. 300 × 6)	1,800
(2) Pay of 6 khallasias at Rs. 12 per mensem (Rs. 12 × 6 × 11)	792
(3) Cost of equipment and appliances for rearing and reeling for Nagpur and Chikalda stations at Rs. 250 per station (Rs. 250 × 2)	500
(4) Cost of testing appliances—microscope, Denier testing machine, etc.	500
(5) Pay of one Supervisor at Rs. 40 per mensem (Rs. 40 × 11)	440
(6) Pay of one rearer reeler at Rs. 25 per mensem (Rs. 25 × 11)	275
(7) Travelling allowance and contingencies	637
Total	4,944
	or
	5,000

No credit has been taken for income from the sale of silk as there will be very little income in the first year.

5. The supervisor and reelers will be recruited from Bengal, Bihar or Mysore which are the main silk producing provinces.

23. Government of Orissa.

- (1) *Letter No. 5027-E., dated the 22nd/23rd July, 1938, from the Secretary to Government, Education Department, Government of Orissa, Cuttack.*

With reference to your letter No. 639, dated the 27th June, 1938, I am directed to say that there are no mills in this province manufacturing silk and artificial silk goods.

- (2) *Letter No. 5475-E., dated the 10th August, 1938, from the Secretary to Government of Orissa, Education Department, Cuttack.*

Subject:—PROTECTION FOR THE SERICULTURAL INDUSTRY.

In continuation of my letter No. 5027-E., dated the 23rd July, 1938, I am directed to forward a reply to the questionnaire received with your letter No. 510, dated the 14th May, 1938.

It will be noticed that a few of the questions have not been answered. Further enquiries are being made in regard to them and the replies will be sent as soon as possible.

Enclosure.

Copy of letter No. 7117-Ind., dated Cuttack, the 2nd/3rd August, 1938, from the Director of Development, Orissa, to the Secretary to the Government of Orissa, Education Department.

With reference to your Assistant Secretary's Memo. No. 3611-E., dated the 24th May, 1938, I have the honour to forward a reply to the questionnaire.

You will notice that a few questions have not been answered. Further enquiries are being made in regard to them and the replies will be sent as soon as possible.

It has been very difficult, in the absence of a Textile Expert, to obtain information. To begin with, no information was available. Copies of the questionnaire were sent to the Weaving Supervisors and to the Weavers' Co-operative Societies in Berhampur. All the replies were poor in material and mutually conflicting on many points. To get correct information on the points raised in the questionnaire, a survey will be necessary and by a person of the type of a Textile Expert who has been in the field for a number of years. The weaving supervisors are not up to that mark.

SERICULTURAL ENQUIRY—(HANDLOOM INDUSTRY.)

Answer to the Questionnaire for Local Governments.

1. (a) Nil.

(b) The number has slightly increased. This is based on the general impression of the Weaving Supervisors in the districts.

2. In case of mulberry silk, the weavers obtain raw materials, i.e., raw silk and silk yarn from Bengal and Mysore. Gold thread is obtained from Surat and Madras through local silk merchants. Artificial silk, which is imported from outside India, is also obtained through these merchants. Tassar silk Weavers obtain tassar silk cocoons from Singbhum, Sambalpur

and Eastern State Agency through the local tassar silk merchants. Except artificial silk all are manufactured in India—

	Per lb. Rs. a.
Manufactured in India—	
* Mulberry silk	5 0 to 6 0
Tassar silk	3 12 to 5 0
Surat gold thread	42 0
Imported from outside India—	
French gold thread	53 0
Artificial silk	0 12

3. Not used in this Province.

4. No.

5. These operations are done by most of the weavers themselves and their dependants.

6. The same kind of silk is used both for warp and weft. Artificial silk is generally used for figure work and for borders in cotton cloth.

7. The organisation of the industry is still in the hands of the merchants who finance it. For their yarn, the weavers have to pay nearly 25 per cent. more than the fair price. Sale of yarns under Government supervision will reduce the cost of manufacture. A similar marketing organisation will help in sale.

8. The following classes of silk articles are still being woven in the provinces:—

Sarees (silk).

Sarees (tassar silk).

Chadars (silk).

Suitings and shirtings (tassar silk).

There is no competition in Sarees and chadars of silk, Tassar is losing market because the material is getting unpopular on account of certain intrinsic disadvantages such as creasing and inability to take most of the dyes, and its general unattractiveness.

	Lbs.
9. Tassar silk goods	4,800
Mulberry silk goods	22,150
Artificial silk yarn used	27,000
	Days. Days.
10. Silk saree	10 to 15
Chadar	8 „ 10
Tassar silk saree	6 „ 8
Tassar silk Shirting 7 yards x 36"	3 days.

11. Indian-made silk and tassar silk and artificial silk of foreign origin are used—

For Mulberry silk sari, 7 yds. x 48"	80 tolas of silk.
For tassar silk sari, 6 yds. x 46"	80 tolas of tassar silk.
For tassar shirting	60 tolas of tassar silk.

* Rs. 74 being the highest rate.

- | | Rs. |
|--|--------|
| 12. Mulberry silk sari, 7 yds. x 48" | 21 |
| Tassar silk sari, 6 yds. x 46" | 7 |
| Tassar silk shirting, 7 yds. x 36" | 7 |
| Silk chadar, 7½ yds. x 63" | 3 to 4 |
13. Approximate value of total annual production is about Rs. 4,54,200.
14. Spun silk is not in use.
15. Weavers obtain silk from local merchants or local dealers.
16. In some parts credit to retail merchants and weavers is up to Rs. 500 for 2-3 months without interest. The retail dealers give credit to such weavers up to Rs. 50 for a month or so without interest. In other parts, interest is charged.
17. In some cases silk merchants sell to weavers through retailers and in some cases they sell to the weavers direct.
18. Foreign silk other than artificial silk is not used in this province. Indian silk is pure and lasting. In the opinion of the silk merchants Indian silk is superior to imported silk and more durable.
19. No. If sorting or grading is introduced the weavers will take advantage of it and this will result in increased consumption of Indian silk.
20. In some parts weavers generally return finished goods to silk merchants who supply them the raw silk on credit. The merchants deduct the price of raw silk supplied to them on credit and pay the weavers the balance of the prices of their finished goods. Here the weavers are quite at the mercy of the merchants in so far as the fixing of the price is concerned.
21. Imported silk is not used in the province, but nevertheless the position found by the Tariff Board in 1934 remains as it was.
22. Foreign silk is not used.
23. The use of artificial silk is increasing on account of its cheapness.
24. Spun silk is not in use.
- 25 & 26. Nil.
27. No.
28. Since there is no silk weaving factory in this province, the particulars required cannot be furnished.
- 29 Nil.
30. Manufactured articles are sold to local merchants. The principal markets are the chief towns of this province, Rangoon, and a few towns of the Madras Presidency.
- 31 & 32. Nil.
33. Information is not available.
34. No.

(3) Letter No. 6743, dated the 15th October, 1938, from the Secretary, to the Government of Orissa, Education Department, Cuttack.

Subject:—PROTECTION FOR THE SEMICULTURAL INDUSTRY.

I am directed to invite a reference to paragraph 2 of my letter No. 5475-E., dated the 10th August, 1938, and to forward a supplementary reply to the questionnaire.

SERICULTURAL ENQUIRY (HANDLOOM INDUSTRY) QUESTIONNAIRE FOR LOCAL GOVERNMENTS.

1. (a) 47,418.

(i) 897.

(ii) 584.

(iii) 45,937.

25. The statement is furnished herewith.

26. It has been ascertained from the leading silk merchants that present duties on imported silk fabrics, artificial silk goods and mixtures have proved beneficial to handloom weavers.

29. No such help is rendered at present.

31. The demand for natural silk is increasing.

32. Mysore and Bengal are the sources of supply of raw mulberry silk. Singbblum, Gaya, Sambalpur and Eastern States Agency are main sources of supply of Tasar cocoons. Correct figures are not available.

Berhampur Centre.

Silk saree—7 yards × 48".
Tasar Saree—7 yards × 48".

Year.	Cost price.		Sale price.		Weavers' wages.	
	Silk.	Tasar.	Silk.	Tasar.	Silk.	Tasar.
	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.
1934 .	8 8	5 10	18 4	9 14	8 0	3 0
1935 .	7 10	5 10	17 6	9 14	8 0	3 0
1936 .	8 12	5 10	18 8	9 14	8 0	3 0
1937 .	10 4	5 10	20 0	9 14	8 0	3 0
1938 .	10 0	9 0	19 12	13 4	8 0	3 0

Silk chaddar—90" × 48".
Tasar chaddar 90" × 48".

1934 .	3 2	2 4	7 13	4 12	4 0	2 0
1935 .	2 13	2 4	7 8	4 12	4 0	2 0
1936 .	3 4	2 4	7 15	4 12	4 0	2 0
1937 .	3 13	2 4	8 8	4 12	4 0	2 0
1938 .	3 12	3 10	8 7	6 2	4 0	2 0

Silk dhoti—5 yds. × 48".
Tasar Dhoti—5 yds. × 48".

1934 .	5 5	4 2	13 10	7 9	6 0	2 8
1935 .	5 11	4 2	13 0	7 9	6 0	2 8
1936 .	6 8	4 2	13 13	7 9	6 0	2 8
1937 .	7 9	4 2	14 14	7 9	6 0	2 8
1938 .	7 7	6 10	14 12	10 1	6 0	2 8

Sambalpur Centre.

Tasar Saree—6 yds. x 44".

Year.	Cost price.		Sale price.		Weavers' wages.	
	Silk.	Tasar.	Silk.	Tasar.	Silk.	Tasar.
		Rs. A.		Rs. A.		Rs. A.
1934	3 8	...	7 0	...	3 8
1935	3 8	...	7 0	...	3 8
1936
1937	3 8	...	7 0	...	3 8
1938	5 0	...	9 0	...	4 0

Tasar Dhoti—5 yds. x 44".

1934 . . .	1 8	...	3 0	...	1 8
1935 . . .	1 8	...	3 0	...	1 8
1936 . . .	...	...	...	...	...
1937 . . .	1 8	...	3 0	...	1 8
1938 . . .	2 0	...	4 8	...	2 8

Tasar shirting—11 yds. x 36".

1934 . . .	3 0	...	6 0	...	3 0
1935 . . .	3 0	...	6 0	...	3 0
1936 . . .	...	...	...	...	...
1937 . . .	3 0	...	6 0	...	3 0
1938 . . .	3 8	...	6 8	...	3 0

- (4) Letter No. 1274, dated the 19th November, 1938, from the Assistant Secretary, Tariff Board, to the Secretary to Government of Orissa, Education Department, Cuttack.

I am directed to invite your attention to this office circular letter No. 544, dated the 24th May, 1938, with which was forwarded a copy of the General Questionnaire issued by the Board on the subject of the Sericultural Enquiry and to say that the Board has not yet been furnished with the replies of the Provincial Government to that Questionnaire. A copy of the letter together with a copy of the Questionnaire, referred to, is enclosed for facility of reference. I am to request that the replies to the Questionnaire may kindly be expedited. I may add that the enquiry is now in its last stages and it would be convenient to the Board if it could have the replies of the Provincial Government as early as possible.

- (5) Letter No. 7850-D., dated the 14th December, 1938, from the Secretary to Government of Orissa, Development Department, Cuttack.

Subject:—ENQUIRY BY THE TARIFF BOARD REGARDING PROTECTION OF SERICULTURAL HANDLOOM INDUSTRY.

With reference to Mr. Mohd. Nazrullah's letter No. 1274, dated the 19th November, 1938, I am directed to say that such information as is available regarding the sericultural handloom industry in the province was furnished

to you with my letters No. 5475-E., dated the 10th August, 1938, and No. 6743-E., dated the 15th October, 1938. No further information on the subject is available.

2. As the Tariff Board are aware this Province was formed only on the 1st April, 1936. There is no information in the offices of this Government on the various points raised in the questionnaire. To collect information now would involve the survey of the whole silk industry for which this Government have not at present the requisite staff. In the circumstances the Government of Orissa regret that they are unable to reply to the General Questionnaire issued by the Board. The delay in replying to the Board's letter is regretted.

(6) *Letter No. 7896-D., dated the 19th December, 1938, from the Secretary, to Government of Orissa, Development Department, Cuttack.*

With reference to your letter No. 613, dated the 17th June, 1938, I am directed to say that the Government of Orissa regret that it is not possible for them to answer to the Questionnaire issued by the Board for Importers and Traders for the reasons stated in paragraph 2 of my letter dated the 14th December, 1938.

24. Government of Sind.

(1) *Letter No. 575-C., dated the 13th July, 1938, from the Government of Sind, Finance Department, Karachi.*

Subject:—PROTECTION TO THE SERICULTURAL INDUSTRY.

With reference to your letter No. 510, dated the 14th May, 1938, on the subject noted above, I am directed to state that in this Province the silk weaving industry exists mainly in two districts, viz., Sukkur and Karachi. As, however, the time allowed for the collection of the necessary information was so short, it has been possible to collect details in respect of the Sukkur District only and these, with six spare copies, are enclosed herewith.

ANSWERS TO QUESTIONS FOR LOCAL GOVERNMENTS.

Information relates to Sukkur District.

1. (a) Total number of Handloom Weavers:—

63 Weavers in handloom factories.

746 Weavers in mohusal.

809

(i) 63 are doing work in silk.

(ii) same number in cotton and silk.

(iii) 746 Weavers in cotton only.

(b) Since 1934 two silk weaving factories have sprung up.

2. Raw materials are obtained by silk weavers from Bombay, Surat and Amritsar. Many materials are imported although some are manufactured in India. Price per lb. of silk is Rs. 5.

3 & 4. No information is available.

5. The various operations mentioned are made by the family members of the weavers but the dyeing is done separately by the dyer.

6. For warp generally 2/10's spun silk is used.

For weft generally 80's spun silk is used.

7. In small factories the weavers are the owners and have nothing to do with merchants but the individual weavers have to depend upon the

merchants. Weavers many times do not get a fair deal under this system. The weavers obtain large sums of money from merchants on loan for repayment of which the poor weavers have to toil throughout their life. If Government would finance the Industry as merchants do there will be a real benefit to weavers.

8. Not all classes are woven in Sukkur. The classes which they weave are Nos. 2, 6, 8 only.

9. 400 yards per day Handloom factories, nothing less from moffusil.

10. Not definite.

11. Spun silk and Cashmere silk.

12. Varying.

13. Not known.

14. For Darya called in this as "Kanege" and suitings.

15. From Bombay, Surat, Amritsar merchants through middlemen.

16. No. Not now.

17. Through all ways.

18, 19 & 20. Not known.

23. Art silk is slowly replacing raw silk owing to the cheapness of articles.

29. No, not known so far in Sukkur district.

30. Sold in Sind, Punjab, Bombay and United Provinces.

31. Demand for natural silk is decreasing.

(2) *Letter No. 575-C., dated the 23rd July, 1938, from the Chief Secretary to the Government of Sind, Karachi.*

Subject:—PROTECTION TO THE SERICULTURAL INDUSTRY.

In continuation of this Department's letter No. 575-C., dated the 13th July, 1938, on the subject noted above, I am directed to enclose the required information, with six spare copies, in respect of the Karachi district.

2. As regards the general questionnaire on the Sericultural industry, I am to state that there is no such industry in Sind.

ANSWERS TO QUESTIONS FOR LOCAL GOVERNMENTS.

Information relates to Karachi District.

1. (a) Total number of Handloom Weavers—250.

(i) 50 are doing work in silk.

(ii) 70 are doing work in Cotton and Silk.

(iii) 100 are doing work in Cotton only.

(b) Yes, slightly by about 20 weavers.

2. Silk is obtained and purchased by the dealers who actually engage the weavers. Weavers do not purchase on their own. Even those weavers that are few in number, that do the work independently purchase silk or other such materials from the dealers and shop keepers that are the sole manufacturers of Tatta Silken Goods.

Rs. 6-6 to Rs. 7 per lb. *plus* annas 4 freight charges. Raw silk from Multan and Amritsar.

Rs. 5 to Rs. 6 per lb. Silk yarn from Multan.

Spun yarn is never used by them.

Rs. 8 for 10 lbs. artificial silk from Karachi.

Real gold Rs. 44 per lb., imitative gold Rs. 11 per lb. gold thread from Bombay, Surat and sometimes from France.

The abovementioned articles are purchased from wholesale dealers from various places.

Raw silk used made in India.

Silk yarn used made in India.

Spun silk never used.

Artificial silk used made in China or Japan.

Gold thread used made in Surat or France.

3 & 4. No information is available.

5. (i) By ladies in Purdah.

(ii) By gents. & ladies but not by weavers.

(iii) By ladies.

(iv) Ladies and gents, other than weavers.

6. Pure silk.

7. The organisation of the industry is still in the hands of merchants. Weavers get Rs. 7 to Rs. 35 per month, according to nature of work and the work finished. Each weaver is paid for material finished, e.g., a weaver when finishes a piece of 6 yards comprising of 36 yards total length gets about Rs. 30 on that. It will take him 4 days for arranging the handlooms and about three to four days for setting. A weaver can produce about $1\frac{1}{2}$ to 2 yards of such a finished khoss in a day of about 9 hours.

8. (1) Yes, (2) No, (3) No, (4) if ordered, (5) No, (6) No, (7) Yes, (8) No, (9) Yes, (10) if ordered and (11) Yes.

9. In all about 10,000 yards produced per year.

10. *For Silk*.—7 days for setting and arranging and $11\frac{1}{2}$ to 2 yards per day is the weaving capacity.

For Gold thread.—About $\frac{1}{2}$ yard weaved per day of about 9 hours.

11. Mostly pure silk is used in quantity of about 10 to 12 maunds per year.

12. For a piece of 36 yards \times 20 inches, price varies from Re. 1 to Rs. 10 per yard according to the quality.

13. About Rs. 50,000 per year.

14. They do not use at all.

15. Purchase through their employers who are also the merchants.

16. No.

17. Silk is purchased directly by the merchants and not by weavers.

18. China silk in their opinion is superior to Bhukhara or Kashmir silk if the same is easily and conveniently obtainable.

19. Silk yarn obtained is not sold. If sorbid yarn is obtainable, weavers will certainly take advantage.

20. Silk is supplied by the manufacturers to the weavers.

21. Information is not available.

22. Indian silk is more easy to wind. No new method of re-reeling has so far been introduced.

23. Imported artificial silk is cheaper than raw silk but raw silk is preferred.

24. Spun silk is not used at all.

25. Information is not available.

27. One new factory has been started in Tatta owing to partners dividing.

28. (1) Raw material Re. 1 to Rs. 3 per yard.

(2) One pie or $\frac{1}{2}$ anna per yard.

(3) 12 annas for 36 yards.

- (4) Rs. 10 to Rs. 30 for 36 yards.
- (5) 8 annas to one rupee for 36 yards.
- (6) Rs. 2 to Rs. 5 per machine for 36 yards.

Weavers are paid per piece of 36 yards. Money is always given in advance.

They are paid from Rs. 10 to Rs. 30 per piece of 36 yards.

29. Manufacturers or even weavers do get loan or other such help from Co-operative Societies. But they never get the help in obtaining raw silk.

30. Sold in Tatta and mostly in Sind. Sometimes orders from various places in India are also received.

31. Demand is slightly decreasing.

32. As mentioned above in question and answer No. 2.

33. Information is not available.

34. Information is not available.

- (3) *Letter No. 575-C., dated the 3rd August, 1938, from the Secretary, to Government of Sind, Finance Department, Karachi.*

Subject:—PROTECTION TO THE SERICULTURAL INDUSTRY.

In continuation of this Department's letter No. 575-C., dated the 23rd July, 1938, on the subject noted above, I am directed to reply as under:—

(a) *Questionnaire for Importers and Traders.*—The information available at present shows that there are no direct importers of raw silk in Sind. The mills and craftsmen using silk yarn generally obtain their requirements through importers at Bombay and elsewhere.

(b) *Questionnaire for silk and art silk goods manufacturers.*—The necessary information is being collected and will be supplied in due course.

- (4) *Letter No. 575-C., dated the 31st August, 1938, from the Chief Secretary, to Government of Sind, Finance Department, Karachi.*

Subject:—PROTECTION TO THE SERICULTURAL INDUSTRY.

In continuation of this Department's letter No. 575-C., dated the 3rd August, 1938, on the subject noted above, I am directed to state that efforts were made to obtain the necessary information regarding silk and art silk goods but without success as the manufacturers are not prepared to disclose it.

25. Government of Delhi.

- (1) *Letter No. 8107, dated the 11th July, 1938, from the Chief Commissioner, Delhi.*

With reference to your letter No. 639, dated the 27th June, 1938, forwarding a questionnaire intended for mills mainly engaged in the manufacture of silk and artificial silk goods, I have the honour to say that there are no such mills in the Delhi Province.

- (2) *Letter No. 8728-L. S. G., dated the 23rd July, 1938, from the Chief Commissioner, Delhi.*

Subject:—PROPOSED CONTINUATION OF PROTECTION FOR THE SERICULTURAL INDUSTRY.

With reference to the correspondence ending with your letter No. 613, dated the 17th June, 1938, on the subject noted above, I have the honour to forward seven copies of the replies to the questionnaire of the Tariff Board relating to the handloom industry, received with your letter No. 510,

dated the 14th May, 1938. No separate opinions in writing have been received from the representatives of the handloom industry but their views have been incorporated in the replies.

2. As there is no sericultural industry at present in operation in Delhi, it is not possible to furnish the information desired in the questionnaire received with your letter No. 514, dated the 24th May, 1938.

(HANDLOOM INDUSTRY).

Replies to Questionnaire for local Government.

1. (a) The total number of handlooms in Delhi Province so far as it has been possible to ascertain, is 1,600, out of which 870 are working at present employing about 740 wholtime and 400 part-time weavers:—

- (i) The number of weavers engaged in weaving pure silk is about 20.
- (ii) There are no weavers in this area who are regularly engaged in weaving cotton and silk mixed fabrics of the description.
- (iii) The total number of weavers engaged in the production of cotton goods only, is about 1,120.

(b) The figures for 1934 are not available. As a result of a survey undertaken, there were found to be 697 wholtime and 364 part-time weavers in 1935, as compared to 740 and 400 respectively, in 1938.

2. The silk weavers obtain their raw material in spun silk and artificial silk yarn through the local merchant who acts as a middleman. The yarns used by these weavers are imported. Raw silk, silk yarn and gold thread are not consumed by the local industry generally.

The present prices paid by the weavers for the spun silk and artificial silk yarn are as follows:—

Spun silk 2/210s—Rs. 5-8 per lb.

Artificial silk yarn—150 Denier—12 annas 6 pies per lb.

3. Yes. Staple yarn is being brought into use by the local weavers in increased quantity. On an average, the proportion of staple yarn utilised generally constitutes 40 per cent. of the total consumption.

The Japanese staple yarn is mostly in use. The local current rates are:—

	Per lb.
	Rs. A. P.
2/30s	0 15 0
2/40s	1 0 6
2/60s	1 2 6
2/80s	1 4 0
2/130s	1 9 0

4. Owing to high lustre and comparative cheapness, the staple fibre fabrics have already captured the market to a fairly large extent, and it is legitimately feared that silk will receive a set-back at least if it is not actually ousted from the market.

5. (i) & (ii) The operations involved in twisting, and boiling off are not undertaken locally.

(iii) Dyeing of silk yarn is being done by agencies other than the weaver himself, according to consumptive demand.

(iv) While doubling is done by thread balling establishments locally, winding and warp preparation are undertaken by the weaver himself.

6. Spun silk, Tussar silk and Karandi silk (waste silk) are mostly used for both warp and weft.

7. The number of weavers engaged in weaving silk is comparatively small in this province. The industry in this province too is, financed by merchants who advance loans in the shape of yarn and purchase the entire finished product. The weavers at present earn barely their living wage. It would be far better if the weavers who are principally cottage workers, were assisted in the purchase of raw materials at market rates and in the disposal of their finished products at remunerative prices, through some well organised co-operative movement.

8. The classes of cloth at present woven locally are:—

- (i) Sarees,
- (ii) Lungis, and
- (iii) Suitings and shirtings.

There are no such qualities of hand-woven cloth produced in this province as enter into competition with imported products, except in the case of summer suitings which have been recently introduced on a limited scale.

9. The total estimated output in yards of silk and artificial silk goods was 20,000 only in 1937.

10. There are no reliable statistics maintained in this direction. The daily estimated average production in each category is, however, represented by the following statement:—

Kinds of yarn used.	Average daily production.
Real silk, Tussar, mercerised yarn and staple yarn.	10 to 12 yards of well-picked cloth containing about 60 to 64 picks per inch.
Art silk and staple yarns	8 to 10 yards of well picked cloth containing about 60 to 64 picks per inch.
Ordinary mill-made cotton yarn	10 to 12 yards of cloth containing 50 to 60 picks per inch.
Hand-spun yarn woven on pit loom	8 to 10 yards of cloth containing 40 to 50 picks per inch.

11. The varieties of silk generally used have already been mentioned under item 6 above. There are no reliable figures available to indicate the quantity of silk of the various qualities consumed in the local industry.

12. The prepared pieces of shirting and suitings generally measure 30 yards x 30-31 inches--

- (i) For the locally produced spun silk suitings, prices vary from Rs. 1-14 to Rs. 2-8 a yard.
- (ii) For the locally produced Tussar silk suitings, prices vary from Rs. 1-2 to Rs. 1-9 per yard.
- (iii) For the locally produced Karandi suitings, prices vary from annas 10 to annas 14 per yard.

13. The value of the total annual production of silk goods in Delhi for 1937, is estimated at Rs. 25,000.

14. Spun silk is mostly used for the production of sarees, shirtings and suitings.

15. The weavers are supplied with yarn mostly by the cloth merchant and in some cases, such supply is obtained directly from dealers in yarn who thus act as middlemen.

16. The yarn merchants allow no credit to the weavers.

17. Silk merchants acting as importers' agents sell directly to weavers in bundles of 5 lbs. and 10 lbs. each.

18. The Indian silk compares favourably with imported varieties in so far as more quality is concerned. The merchants hold the view that the qualities of silk ordinarily available in the local market and imported from manufacturing centres like Ludhiana, Amritsar, Surat, Bhagalpur and Murshidabad, possess less lustre and softness than the foreign qualities selling at the same price.

19. No sorting or grading of yarn is practised locally. Only graded yarns are imported into Delhi.

20. The cloth merchant acting as a middleman advances silk yarn to approved weavers who return the finished article to him for marketing purposes. The work is done on a contract basis, and the weaver receives from an anna to two annas per yard according to the quality and nature of the article produced. A part of the wages is paid to the weaver in advance. Deductions are, of course, made from the payment for defective work.

21. Delhi does not import any raw silk.

22. The silk rearing industry is not in operation in Delhi.

23. There is little trade of importance in raw silk locally. The competition offered by artificial silk yarn is, however, steadily replacing pure silk yarn in the market.

24. The view held both by the weavers and the merchants is that the foreign spun silk which requires no re-reeling, twisting or degumming, is more economical in use than the Indian raw silk available in hanks. The present rate of duty is held to be insufficient to protect the Indian product.

25. The hand weaving industry in silk is not more than two years old and, therefore, no comparative figures regarding prices and wages are available.

26. The view held locally is that any increase in the duty on imported silk should be accompanied by an increase in the duty on imported silk manufactures. The present duties on imported silk fabrics, artificial silk goods and mixtures, have proved beneficial to some extent to handloom weavers. The advantages will be increased if the duties on imported silk and silk goods were increased.

27. The following factories have come into existence subsequent to the grant of protection to the sericultural industry combined with the levy of protective duty on imported silk fabrics:—

- (i) The Delhi silk and woollen mills are working in Qarolbagh as a private enterprise with a capital of about Rs. 15,000.
- (ii) The Divaker Textile Mills Limited are under construction at Silampur. It is a joint stock company limited by shares with an authorised capital of Rs. 1½ lakhs which has been fully subscribed.
- (iii) The Fancy Silk and Small-ware Weaving Mills Limited, are working at Khyber Pass. It is a joint stock company limited by shares with an authorised capital of Rs. 1 lakh, of which Rs. 87,975 have been subscribed.
- (iv) Messrs. Mehra and Company have established a manufactory at Darya Gunj, for the production of silk and artificial silk tapes, with an investment of about Rs. 25,000.

The manufacturing establishments use imported raw material for reasons of uniformity, better lustre, easier re-reeling, and cheapness. The additional advantage in using the imported raw material is provided by yarn on cheeses ready for warping purposes, and on pirns to fit the shuttle of the loom ready for weaving, to save wastage which otherwise would tend to increase the ultimate cost of production.

28. The following tabular statement furnishes the approximate cost of manufacture of typical articles of silk cloth of local production:—

Description of cloth.	Cost of raw material.	Twisting and winding charges.	Dyeing charges.	Weaving charges.	Cost of labour.	Other incidental costs including finishing charges.	Total cost.
	Rs. A. P.	As. P.	As. P.	Rs. A. P.	As. P.	As. P.	Rs. A. P.
Coating, 31" × 30".	32 0 0	6 6	4 0	2 5 6	2 0	8 0	35 10 0
Shirting, 31" × 30".	15 0 0	3 0	..	1 14 0	1 6	6 0	17 8 6
Saree, 44" × 5".	4 0 9	0 9	2 0	0 7 6	1 0	2 0	4 14 0
Tahmat fancy, 44" × 2½".	2 4 0	1 0	4 0	0 4 9	1 0	1 6	3 0 3

29. So far the co-operative movement has done little to finance the handloom weaving industry generally in this province.

30. The consumptive demand in Delhi is considerable and the products find an almost ready market locally.

31. The demand for natural silk, owing principally to its higher cost, is on the decrease.

32. Delhi is not a centre for the consumption or redistribution of raw silk.

33. As at present, there is little turnover from imported to indigenous silk in Delhi.

34. Nothing in particular.

26. Government of the North Western Frontier Provinces.

Letter No. 20920/9/28, dated the 10th June, 1938, from Secretary to Government, N.-W. F. P., Development Departments, Peshawar.

With reference to your letters Nos. 510 and 544, dated the 14th and 24th May, 1938, respectively, I am directed to state that as there is no Sericulture industry in this Province, the Provincial Government have no comments to offer on the set of questionnaires forwarded with your letters under reference.

27. Government of Burma.

(1) *Letter No. 579, dated the 8th June, 1938, from the Secretary, Tariff Board, to the Secretary to Government of Burma, Revenue Department, Rangoon.*

I am directed to refer to the Government of India in the Department of Commerce Resolution No. 28-T. (2)/38, dated the 9th April, 1938, in which the Tariff Board has been directed to enquire into the necessity for continuation of protection for the Sericultural Industry provided by the Indian

Tariff (Textile Protection) Amendment Act, 1934, which will expire on the 31st March, 1939.

I am therefore directed to forward herewith two questionnaires relating to that Industry and to request that, if the Government of Burma are interested in this enquiry, replies with six spare copies may be sent so as to reach the Board's office at Poona not later than August 1st.

(2) *Letter No. 191-K. K./38 (1559), dated the 23rd September, 1938, from the Government of Burma, Department of Commerce and Industry (Commerce Branch).*

Subject:—QUESTION OF CONTINUING THE PROTECTION AFFORDED TO THE SERICULTURAL INDUSTRY AFTER THE 31ST MARCH, 1939.

With reference to your letter No. 579, dated the 8th June, 1938, I am directed to forward, for your information, 6 copies each of—

(i) replies to the General Questionnaire (excepting Questions Nos. 54, 68 and 73), prepared by the Director of Agriculture, Burma, and

(ii) replies to the Questionnaire relating to the Handloom Industry, prepared by the Superintendent, Cottage Industries, Burma, and to say that replies to Questions Nos. 54, 68 and 73 of the General Questionnaire will be furnished shortly.

2. With reference to the latter portion of your telegram* No. 989, of the 19th instant, I am to inform you that the question of holding a separate enquiry in Burma is under consideration, and that, therefore, this Government does not propose to ask the Board to visit Burma.

3. I am to request that you will be so good as to furnish this Government, with the approval of the Government of India, with four copies of your Board's Report, when it is published.

Enclosure I.

Answer to General Questionnaire relating to Sericultural Enquiry furnished by the Entomologist, Burma, Mandalay.

1. There are expansions in Leiktho, Shwebandaw, Kalama and Wettigan. No survey of the rearers or the land under mulberry has been taken.

In Burma no separate industries as, cocoon producing (rearing), reeling, and mulberry cultivation (for selling leaves to rearers) exist. Then again no one appears to be entirely dependant upon Sericulture alone, though it may be the main occupation. Perhaps the number of rearers may approach 1,000 in all.

2. No business organisation exists here.

3. No figures for the maximum production of (i) cocoons, (ii) raw silk are available as there is no organised industry.

	Grain average.
4. Chinese silk content	4.6
Japanese silk content	4.04
Maymyo hybrids Nistid	2.3
Maymyo hybrids Nismo	3.2
Maymyo hybrids Nistan	2.5

5. Mulberry feeding silk worms.

* Not printed.

6. This means a building constructed for commercial purpose. The cost of buildings as built by the Government cannot be taken for comparisons.

7.	Race.	Number of days from hatching to spinning.	Number of cocoons to a pound.	Length of filament.	Denier.
	Nistid 4th	25.4	505.7	400	13½
	Nismo	25.3	508.3	550	13½
	Nistid 1st	25.0	556.6	350	12½
	Nistid 3rd	25.7	518	355	14½
	Nistid 2nd	25.1	535.1	400	15½

8. No change in the method has been adopted.

9. The worms were imported originally. Now the seed is locally produced. No separate organisations of seed production and cocoon production exist.

Only stiff, compact cocoons are selected for seed. Then the longevity and healthy condition of moths are considered. Only eggs from these moths are used for seed. Later moths are microscopically examined.

10. There is no legislation regarding distribution of disease free eggs. The Department distribute only eggs selected as in 9.

11. Multivoltine—eight broods in a year 1 oz. of seed produces approximately 35,100 worms.

Figures for total number of ounces of seed reared in the province are not available.

12. Univoltine Italian race introduced in 1925 is more or less acclimatized, but it is not done as a commercial proposition, i.e., not for rearing on a commercial scale.

To maintain this race the eggs have got to be artificially hibernated by refrigeration.

13. As in No. 9.

For the prevention of pebrine disease care is taken not to introduce outside worms. Precaution by microscopic examination followed by disinfection of eggs as well as the rearing house and the appliances are carried out as routine work.

14. So far as the Departmental worms are concerned the wastage due to diseases is negligible. The private indigenous rearers suffer a lot from epidemics but no figures are available.

These rearers are urged to rear the disease-free egg's supplied free by the Department.

15. Mulberry leaves are the only leaves fed to worms in Burma and without exception the rearer himself grows his own mulberry on his own land. No case of a piece of land being rented for mulberry cultivation is known.

Cost of cultivation of 1 acre. Bush mulberry of 4,840 bushes yields 9,000 lbs. leaves.

	Rs. A.
Preliminary clearance	30 0
Ploughing	4 8
Harrowing	4 8
Cost of 20 cart-loads of manure (F. Y. M.)	20 0
Cutting setts and planting (2 men and 10 women for 3 days)	12 0
Four prunings (2 men for 4 days)	15 0
Four intercultures (2 men and 2 bullocks for 3 days)	18 0
Hand weeding (6 women for 5 days a time)	18 12
Total	122 12

	Rs. A.
Recurring expenditures—	
Digging out roots (6 men for 4 days)	10 8
Four prunings	15 0
Four interculturalures	18 0
Two hand weedings	18 12
Cost of manure (10 carts)	10 0
Total	72 4

Tree mulberry—1 acre=70 trees.

Yield of leaves=5,400 lbs.

1st year Preliminary clearance	30 0
Digging pits	14 0
Manure	20 0
Planting and filling	15 0
Total	79 0

Recurring expenditures—

Digging and mulching	7 0
Four interculturalures	18 0
Total	25 0

4 Weeding with scythe or dah	25 0
2 men at annas 14 a day per head for 2 days for 4 times	7 0
Total	32 0

16. (a) Grafting and growing medium hedges.

(b) Information in 15.

17. (i) No data.

(ii) No data.

18. No data.

19. Not known.

20. The majority of indigenous private rearers still continue on the old methods. There is no organisation for marketing yet.

21. One ounce of seed yields 35,400 cocoons.

One acre of mulberry yields 43,666 cocoons.

No figures for univoltine and bivoltine are available.

No data by which to say if any improvement has occurred since last Tariff Board Report.

22. Silk content of—

	Grains.
Univoltine (Italian)	4.6 (reared at Maymyo)
Multivoltine—	
Burmese	1.5
Nistam	1.2
Mysore	1.5
Bengal	1.2
Crosses	2.74

23. (a) & (b) The expenditures in nurseries will not necessarily be purely for production of cocoons, because, expenditures such as supply of cuttings, layings of eggs, cost of seed supply boxes, etc., are all added up together, and are not possible to be separated out.

24. Sale of cocoons is not practised here.

No data of annual production of cocoon in the province is available.

25. Breeder always reels his cocoons. Never sells cocoons.

(a) 100 lbs. of cocoons yield 11.5 lbs. reeled silk.

(b) 100 lbs. of cocoons yield 88.5 lbs. waste.

26. There is no power driven machinery. All is reeled by hand.

27. Total quantity of raw silk reeled in the province will be approximately 10,800 lbs. the average price being Rs. 4-2-6 per lb.

Waste produced is not marketable here.

4,284 cocoons are required to produce 1 lb. of raw silk. There is no filature in the province. Reeling is done by hand mostly by the indigenous method. Very small proportion is reeled by the treadle machine.

28. The indigenous method requires very simple equipments just an earthen pot, a tripod, a fork and a reel which are all made at home at the cost of a few annas. An experienced woman can reel about 36 to 54 lbs. of raw silk working for about 9 hours.

The Department advocates the use of a treadle reeling machine costing about Rs. 24 which can reel 49 lbs. in about 8 hours.

A machine in use has been working for about 6 years, though worn out parts have been replaced.

29. No data.

30. No information.

31. No information.

32. No information.

33. In Burma the rearer himself is the mulberry cultivator and reeler as well. There is no distinct branches of the industry as enumerated.

34. No filatures.

35. (1) The reeling girls in nurseries are paid Rs. 7 to Rs. 8. They only work with the treadle reeling machine and they help with the sorting and clearing of cocoons as well as the washing of nets and trays and other odd jobs.

(2) I have no idea.

(3) No facilities for technical instructions are available in the province, but people who would like to take practical training in rearing and reeling are entertained.

36. No filature.

37. No filature.

38. No filature.

39. No filature.

40. No throwing as a business is carried out here.

41. The raw silk in Burma is mainly Chinese, probably imported overland, (1) the price of which is Rs. 4-16 to Rs. 5-27 per pound. (2) & (3) No informations in these connection are available.

42. Re-reeling is done by indigenous private rearers, and the blemishes and defects are many in their silk.

With the treadle reeling machine the defects are greatly reduced, still re-reeling has to be done.

43. The cost of re-reeling the Chinese raw silk common in Mandalay is 2-3 annas per lb. and the loss is about 10 per cent.

44. Not known.

45. Only weaving in the province. Perhaps in India tennis guts, fishing lines, strings for musical instruments are manufactured out of raw silk.

46. (1) Nil.

(2) Estimating the rearers to number about a thousand and producing 3 viss of raw silk each, the total production must be somewhere round about 3,000 viss or 10,800 lbs.

47. The annual production may be taken as 10,800 lbs. of raw silk approximately and is consumed at home. There is no export and there is no system for marketing.

48. No export.

49. No data.

50. No comparison arises.

51. Nil.

52. No data.

53. Never imported by me.

54. Chinese raw silk, twisted and nntwisted are the most common here.

55. No information.

56. Cannot say.

57. The imported silk in this country is mainly Chinese. The silk reeled by the indigenous method is used for a particular type of weaving and fetches almost as good a price as the imported Chinese silk. The silk reeled by the treadle machine is also as good as the Chinese silk to the weavers at Amarapura.

58. I have no idea.

59. There are no Tasar, Muga and Eri in this province.

60. I do not think any silk waste is imported into Burma.

61. Silk waste including weight of chrysalis comes up to 88.15 per cent. Please see No. 25.

62. There is no market for silk waste here.

63. The private indigenous rearers still keep on rearing a good amount of indigenous multivoltine worms which contain a very high percentage of floss, but according to their method of reeling the floss is incorporated into the coarse thread.

The Agricultural Department has got only hybrid multivoltines and no pure multivoltines. The differences in silk content between the Department hybrids and the indigenous multivoltines will be seen in the answer to question 22.

64. No spinning plant exist in Burma.

65. No filature.

66. Burma never exported raw silk waste.

67. No export.

68. Nil.

69. Please refer to this office No. 862/28-14, dated the 23rd August, 1938, where I have submitted that no protection seemed called for.

70. No answer seems necessary.

71. Cost of raw silk varies from Rs. 15 to Rs. 19 per viss, and 11 to 12 ticals of raw silk costing about Rs. 1-12 can be woven into a langyi which sells at Rs. 4.

72. I am not able to make any statement.

73. Nil.

74. I am not able to make any statement.

The original copies of General Questionnaire are herewith returned.

Enclosure II.

Answers to Questionnaire relating to the Handloom Industry in Burma.

1. (a) The total number of persons whose main or subsidiary occupation is silk or cotton weaving, has been estimated at one lakh and a half. The exact number of weavers engaged in weaving different classes of goods is not known. Cotton weaving is more wide-spread and employs more hands. Silk and mixed goods weavers form less than 30 per cent. of the total.

(b) Yes.

2. From the retail dealers Imported. Price of silk (warp) is Rs. 8, weft Rs. 5, spun silk Rs. 4 and artificial silk Re. 1 to Rs. 1-8 a lb.

3. No.

4. No. Owing to their low wearing qualities and comparatively high price compared with real silk, staple fibre goods do not find favour with the consumer.

5. By other agencies.

6. For warps, good quality hard twisted yarn is used, for weft untwisted or yarn with less twist is used.

7. In Burma handloom weaving is generally carried on by the agriculturists as a subsidiary industry. The weavers in most cases work on their own. But in important weaving centres where the industry is more or less organised it is controlled by the financiers. The present system cannot be considered as a satisfactory arrangement. To make the weaver independent, the only remedy seems to be in organising weavers societies on co-operative lines.

8. In this country lungyis are the only class of goods manufactured, with a small quantity of shirting and suitings. Silk lungyis for ladies' wear meet with a certain amount of competition from Japan.

9. Over 450,000 yards of silk lungyis are produced annually.

10. An average weaver takes a day to weave a piece of silk lungyi which is 44" wide and 4 yards long.

11. Chinese silk is generally used. A small quantity of indigenous silk is also used in certain localities.

12. The dimensions of a piece of lungyi are 44" x 4 yards. The price ranges between Rs. 7-8 and Rs. 14.

13. Over 17½ lakhs.

14. A small quantity of spun silk is used chiefly in the manufacture of suitings.

15. Through middlemen.

16. Yes. Each weaver is given up to about Rs. 100 worth for a month.

17. Through retailers.

18 & 19. Indian silk is not used to any appreciable extent in Burma.

20. Yes. Silk is supplied to the weaver at the current market price and the finished article is taken back from him at the prevailing market rate. The merchants undertake to sell the finished article on behalf of the weaver merely to push the sale of silk yarn.

21 & 22. As the silk used in Burma is mainly Chinese no opinion can be offered on these points.

23 & 24. These questions do not arise in the case of Burma where very little artificial or spun silk used at present.

	Price of raw silk.	Price of finished article (lungyi.)	Wages of labour.
	Rs.	Rs. a.	Rs. a.
25. 1934-35	19 a viss.	7 0 a piece.	1 0 a piece.
1937-38	28 „	7 8 „	0 12 „
			49 A

26. As far as Burma is concerned the imposition of present duties on imported silk fabrics has proved beneficial to the handloom weaver to some extent.

27. No.

	Rs.	A.
28. Cost of Raw Materials	6	0
Dyeing and other charges	0	8
Weaving charges	0	12

Weavers are paid 12 annas per piece of 44" x 4 yards.

29. Co-operative Weaving Societies do not exist in this country, however, Government assists the weavers in other ways by establishing and financing a Textile Depot, an agency through which yarn and weaving accessories are supplied to the weavers and their products disposed to the traders and consumers.

30. They are sold at the place of manufacture and are also sent to other places in the country. Freight and other incidental charges are borne by the buyers.

31. It has decreased compared with the years before trade depression set in.

32. The chief source of supply is China which supplied over 14,000 maunds in 1937-38. The yearly local production is about 10,800 lbs.

33. Yes. In the case of Burma more out of sentiment to encourage home industry than as a result of protection.

34. In Burma sericulture is still in a backward state. The yield of local silk is not sufficient to meet even one-tenth of the requirements of the home weaving industry which has to depend mainly on outside sources for its supply of raw material. Hence the continuation of protection to the sericulture industry in this country has an adverse effect on the silk weaving industry.

(3) *Letter No. 191-K. K./38 (1559), dated the 2nd November, 1938, from the Secretary, to the Government of Burma, Department of Commerce and Industry.*

Subject:—QUESTION OF CONTINUING THE PROTECTION AFFORDED TO THE SERICULTURAL INDUSTRY AFTER THE 31ST MARCH, 1939.

In continuation of my letter No. 191-K. K./38, (1559), dated the 23rd September, 1938, on the subject mentioned above, I am directed to inform you that replies to Questions Nos. 51 and 68 of the General Questionnaire cannot be furnished as required on the lines given in Table LXVI of the Tariff Board Report of 1933. The classification of Chinese silk followed by the Customs Authorities in Burma is on general lines, that is, Chinese Raw Silk—Piece-goods—Silk yarn noils and warps—Thread for sewing and other sorts.

As regards Question No. 73, I am to say that the following steps have been taken by the Government of Burma to improve the Industry:—

- (a) Additional Sericultural staff has been employed and paid out of the sericultural grant received from the Government of India during the period 1935-36 and 1936-37.
- (b) Research is being conducted to discover—
 - (i) the best types of grafted mulberry, and
 - (ii) the best yielding races of silkworms, i.e., those giving to highest percentage of silk and the longest filament by crossing.
- (c) A State scholar has been sent to Japan for the study of sericulture and silk weaving.
- (d) Training in sericulture is given by the Agricultural Department.
- (e) Instruction is being given in methods of improved reeling according to the requirements of weavers at various sericultural stations.

28. Mysore Silk Association, Bangalore.

(1) *Letter from the Honorary President, the Mysore Silk Association, Bangalore, to the Secretary, Tariff Board, dated the 22nd June, 1938.*

With reference to the press communiqué of the Indian Tariff Board inviting memorandum from interested bodies on protection to Silk Industry in India, I have the honour to submit the following.

The importance of the Sericultural Industry, the prominent place it occupies in the agricultural economy of the country and its eminent fitness for protection by satisfying all the conditions prescribed by the Fiscal Commission having been fully recognised by the Tariff Board appointed by the Government of India in 1932 to report on this industry, it is unnecessary to dilate now on these points. All the facts relevant to the question of protection to the industry have been placed before the previous Tariff Board by the Mysore Silk Association in its notes as well as the evidence submitted by it to the Board. In urging before the Tariff Board the need for adequate protection to the industry this Association prayed that protection at the undermentioned rates should be given for at least 15 years which was considered to be the minimum period required to effect economies and improvements in the cost of production so as to bring down the fair selling price of Mysore silk to the level of the selling price of imported foreign, particularly Chinese, silk.

	Duty originally asked for by the Asso- ciation.
	Per cent.
(1) Raw Silk	125
(2) Silk Yarns, Noils and Warps, Silk Thread and Spun Silk	125
(3) Artificial Silk Yarn and Thread	125
(4) Silk Goods	125
(5) Silk Mixtures	100
(6) Artificial Silk Goods and Mixtures	100

2. In their report to Government, the Tariff Board found that the fair selling prices of Indian Charka silk of first quality which corresponded to imported Canton Filature would be Rs. 6-2-6 per lb. and that of Indian Filature silk corresponding to the superior imported filature silk would be Rs. 6-10-9 per lb. and, on the basis of these figures and the then prevalent average price of imported Canton Filature and superior filature silks which were Rs. 3-12 and Rs. 4-3-6 per lb. respectively, the Tariff Board considered that the measure of protection needed by both the Indian charka silk as also Indian filature silk would amount to Rs. 2-6 per lb. and recommended that protection should be given in the form of a specific duty of this amount. (Vide paragraph 184 of the Report.) They also further observed that if "prices as represented by the *ex-duty* price of Rs. 3-11 per lb. of Canton Steam filature silk fall below this level, there is a risk of our measure of protection proving inadequate. It will be necessary for the Government of India to watch the course of prices in order that they may apply the relevant provisions of the Safeguarding of Industries Act should the circumstances demand it". (Paragraph 207, page 174 of the Report.) Though the measure of protection recommended by the Tariff Board was

less than that asked for by this Association as well as all persons interested in the Silk Industry in India, even this modest proposal of theirs did not meet with the approval of the Government of India, who sanctioned the rates or protection only at the undermentioned rates:—

Duty sanctioned.

- (1) Raw Silk 25 per cent. *plus* As. 14 per lb.
- (2) Silk Yarns, Noils and Warps, 25 per cent. on Silk Yarns including
Silk Thread and Spun Silk. thrown silk warps, 25 per cent.
only on Noils, Spun Silk and
Sewing Thread.
- (3) Artificial Silk Yarn and Thread . 25 per cent. or As. 3 per lb. which-
ever is higher.
- (4) Silk Goods 50 per cent. *plus* Re. 1 to Rs. 2 per
lb. according to quality.
- (5) Silk Mixtures 50 per cent. *plus* Re. 1 to Rs. 2 per
lb. according to quality.
- (6) Artificial Silk Goods and 50 per cent. *ad valorem* or 24 annas
Mixtures. whichever is higher.

3. In the course of the discussions on the Bill before the Imperial Legislative Assembly, when the inadequacy of the protection proposed to be granted by the Government was pointed out, the then Commerce Member, The Hon'ble Sir Joseph Bhore, was pleased to give an assurance that if the rates of duty proposed to be levied by Government failed to achieve the object that the Government had in view, they would not fail to reconsider the position and that Government would not feel justified in allowing the protection given to silk to be defeated by further serious lowering of the prices. The contingency contemplated by the Commerce Member, i.e., the further lowering of prices, having actually occurred, several representations were made to the Government of India by this Association from time to time strongly urging the raising of the duties in accordance with the assurance given by Sir Joseph Bhore. A deputation consisting of the President of this Association, the Secretary of the Association, the President of the Mysore Chamber of Commerce and another prominent sericulturist also waited upon the Commerce and Industries Members of the Government of India at Simla in September, 1936, and urged for enhanced protection to the industry. Though this representation was strongly supported by some of the leading Chambers of Commerce in Madras and Calcutta as also by the Madras and Bengal Governments, it is unfortunate that it did not receive favourable consideration at the hands of the Government of India. Copies of the representations made to the Government of India as also copies of the note submitted to the Commerce and Industries Members at the time when the Mysore deputation met them at Simla are herewith attached (Enclosures "A" to "F") and a perusal of these notes is respectfully invited as they clearly explain the position.

4. Since the abovementioned representations were made to the Government of India there has been no improvement in the position of the industry. The *ex-duty* price of Canton Filature silk corresponding to the first quality Mysore charka silk was Rs. 2-15-7 per lb. in March last according to the Government of India figures: and at the present day it would be Rs. 2-8 per lb. (calculated on the present selling price of Rs. 3-15-6 per lb. which includes a duty of 25 per cent. *ad valorem plus* 14 annas per lb.) as against Rs. 3-12 per lb. assumed by the Tariff Board in 1933 for purposes of their report, thus justifying the increase of the duty

by about Rs. 1-4 per lb. over and above the rate of Rs. 2-6 per lb. recommended by the previous Tariff Board on the basis of the then prevalent prices.

It may also be mentioned here that since the enquiry of the previous Tariff Board, the Canton Filature silk has been to a very large extent displaced in the Indian market by Japanese silk. The imports of raw silk from Japan have increased enormously during the past few years, and unless adequate protection is given against it the Indian industry is sure to be swamped by it and completely swept out of the field.

5. Once the case for protection to the industry is admitted, it logically follows that, if the protection is to be effective, it should be adequate and should be sufficient to raise the price of foreign silk to the level of the fair selling prices of Indian silk as per figures arrived at by the previous Tariff Board after a thorough and exhaustive enquiry into the conditions of the Sericultural Industry in India. Anything less would serve no useful purpose, since so long as the sericulturist has to incur a loss, however, small, when marketing his product, he cannot be expected to pursue the industry or take to it with enthusiasm. Inadequate protection acts, in fact, as a snare to tempt people to take to the industry in the hope of making a profit with the protection afforded and the non-realisation of the hope has a highly discouraging and deterrent effect on the industry.

6. The object of giving protection to the industry being to enable the industry to adopt suitable measures to reduce the cost of production of Indian silk, the period of protection should be sufficient to enable this object to be achieved. The measures to lower the cost of production consist of (1) improvements in mulberry cultivation, (2) improvements in rearing cocoons, and (3) improvements in reeling. Action has been and is being continuously taken by the Government of Mysore in every one of these respects. Tree mulberry plantations have been started in several places but it will take some years for the trees to grow up and their effect to be noticed. The number of grainages for supply of disease-free eggs has been greatly increased and the annual supply of eggs which amounted to 35 lakhs in 1932-33 has now been increased to more than one crore, about 70 lakhs of which consist of cross-breed layings against only about 8 lakhs of cross-breed layings in 1932-33. Even this increased supply is, however, only about a little more than a fourth of the total demand for the State and it will take at least 10 years more for the full demand to be met, as it is not merely a question of finding the money required for the purpose but of training the agency. Reeling improvements have been undertaken and action has been taken to establish filatures on up-to-date lines. To enable the reeler to obtain better prices for the silk waste which is the by-product obtained in the course of reeling raw silk and for which there was practically no demand in the past in India—a Spun Silk Factory has been established as a Joint Stock concern, with substantial help from Government, and this has already led to an appreciable increase in the price of silk waste in the State. For the full effect of all these measures to be felt, a period of at least 15 years will be required; and unless protection is given for this period it will not be possible to achieve the object aimed at by it. The previous Tariff Board, in recommending that the duty proposed by them may be in force for a period of 5 years, suggested at the same time that a further enquiry at the end of this period was contemplated. They stated as follows: “We refrain from recommending protection for a longer period, partly because until the industry is reorganised we can have no adequate data on which to base future costs of production, and partly because in the constantly changing world conditions of to-day, we find it impossible to foresee what developments in exchanges, demand, prices and returns from alternative crops may occur during the next few years. We hope that by the time the further enquiry is held conditions may have become sufficiently settled to justify more confident forecasts than we are now in a position to make”. (Paragraph 189 of the Report.) The results achieved during the past few years fully justify the hope that given adequate protection for a sufficiently long period,

the industry will be able to fully re-establish itself, and it is therefore prayed that for reasons already given, the period of protection may be extended to 15 years—such period counting from the date on which the protection granted is adequate and sufficient to raise the price of foreign silk to the level of the fair selling price of Indian silk.

7. Provided adequate protection is given for a sufficiently long period the industry is capable of being developed so as to supply all the needs not only of India but the entire British Empire. One strong reason why the British Indian Government should adopt all possible measures to encourage the development of silk industry in India is that it is the only part of the British Empire in which this industry is practised on an extensive scale; and as silk is being now used more and more as a war material, particularly in connection with aeroplanes, Great Britain should not be made to depend for the supply of silk required for this purpose on foreign countries like Japan, which may be ranged at any time on the enemy side, when it can get all its supplies from its own dominions.

8. As regards the exact measure of protection required it should, as observed already, be such as to raise the price of imported silk at least to the level of the fair selling price of Indian silk as fixed by the previous Tariff Board. Due to the inadequacy of the protection granted in 1934 and the comparatively short time that has elapsed since then it has not been possible to make any appreciable reduction in the cost of production of silk below the figures arrived at by the previous Tariff Board which may, therefore, be taken as the basis for determining the required amount of protection. Based on these figures and on the present prevailing prices of foreign silk, a specific duty of Rs. 6-2-6 minus Rs. 2-8 or about Rs. 3-10 per lb. of raw silk (with corresponding rates for silk mixtures and manufactures) will be required if the duty is to be adequate and effective. In view, however, of the fluctuations in the prices of foreign silk from time to time and also of the tendency on the part of the importing countries to manipulate the prices from time to time, so that the duty may not be raised, it is desirable to regulate the amount of duty from time to time in accordance with the prevailing prices; and this Association would therefore suggest that instead of prescribing a fixed rate of duty to be in effect for a number of years, the duty may be levied on the basis of the declared ex-duty price of foreign silk so as to bring it to the level of the fair selling price of the Indian silk as determined by the Tariff Board. It is also urged that in determining the duty on all imported silk and silk manufactures, the invoice prices according to the invoices produced by the importers may be taken into account instead of the average tariff values as is being done at present, as the latter procedure gives scope for superior silk being often passed off for inferior silk and let off with a much lower rate of duty than would be justifiably recoverable for it.

9. The arguments used against the grant of adequate protection to silk industry—such as its effect upon the Weaving Industry and upon the consumers—have been dealt with in the enclosed notes and representations submitted to the Government of India (Enclosures "B" to "G" and "H") and kind reference is invited to them for a detailed answer to them. It may, however, be briefly stated here that silk being an article of luxury a small increase in its cost will not act as much of a burden to the consumer and that the Weaving Industry in the country will not be prejudicially affected provided the increased duty on raw silk is accompanied by a corresponding duty on all silk mixtures and manufactured articles imported into the country. A self contained Memorandum explaining in detail the need for adequate protection to Silk Industry in India is also enclosed.

10. In conclusion this Association strongly urges upon the Tariff Board the imperative need not only for raising the level of duties on raw silk and silk mixtures to the rates mentioned in the annexed statement, but also for the period of protection being extended to 15 years from the date on which such increased protection is given effect to.

Statement showing the rates of protective duties that should be imposed on Raw Silk, Silk Goods, Mixtures, etc., imported into India.

- | | | |
|---|--|-----|
| (1) Raw Silk | 150 per cent. or a specific duty of Rs. 3-10 per lb. based on present prices; or a duty equivalent to the difference from time to time, between the <i>ex-duty</i> price of foreign silk and the fair selling price of Indian silk of corresponding quality. | |
| (2) Silk Yarns, Noils and Warps, Silk Thread and Spun Silk. | Do. | Do. |
| (3) Artificial Silk Yarn and Thread . | Do. | Do. |
| (4) Silk Goods | Do. | Do. |
| (5) Silk Mixtures | 125 per cent. or a specific duty of Rs. 3-10 per lb. based on present prices; or a duty equivalent to the difference from time to time, between the <i>ex-duty</i> price of foreign silk and the fair selling price of Indian silk of corresponding quality. | |
| (6) Artificial Silk Goods and Mixtures. | Do. | Do. |

Enclosure A.

MEMORANDUM ON PROTECTION TO SILK INDUSTRY.

Silk Industry in India is ancient, and has been in existence in Mysore for nearly a century and a half. It is practised in Mysore, parts of Madras Presidency bordering Mysore State, Bengal and Kashmir. During normal times India produced about 2 million pounds of silk and provided occupation directly and indirectly to about 4 lakhs of families. In Mysore the area under mulberry in 1926-27 was about 53,000 acres and silk industry provided occupation to about 2 lakhs of families. Since then the area has decreased from year to year due to severe competition from foreign countries. By 1936-37 the area had fallen down to the low figure of 25,000 acres. There was a slight increase—to 26,500 acres in 1937-38, due to the hopes which the temporary increase in prices of foreign imported silk during some months of 1936-37 raised in the minds of the Sericulturists of the increased rates being kept up. But the prices of silk have again fallen down, frustrating their hopes.

2. Importance of the Industry to the State.

Sericulture is practised almost entirely as a subsidiary occupation to agriculture. In the "Maidan" parts of the State where it is practised, it provides a substantial additional income to the agriculturist. In normal times it was practised in 2,500 villages out of 19,000 villages in the State, affecting the lives of nearly one-seventh to one-sixth of the population of the State.

3. Organization of the Industry.

Silk Industry comprises (a) Mulberry Cultivation, (b) Silkworm Rearing, (c) Silk Reeling, (d) Silk Weaving, and (e) Utilisation of by-products, i.e., manufacture of spun silk and noil yarn.

Mulberry is grown in the State by agriculturists on pieces of land set apart for the purpose. A family grows about one-fourth to half an acre of mulberry. It is both a ruined and irrigated crop. Of the total acreage

under mulberry, about one-fourth is irrigated crop served by tanks, shallow wells, or deep wells as the case may be, according to the tracts in which it is grown. Till very recently it was almost entirely raised as "bush" garden. For the past few years, planting of "mulberry topes" has been encouraged by the State.

Silkworm rearing is done generally by the grower of mulberry himself employing family labour for rearing worms. He employs additional paid labour for cultivating mulberry when necessary and for picking leaves during the last stages of worms when consumption of leaf increases. Worms are reared in a portion of the house in which he dwells. Whenever he is in need of money he usually borrows it from the Charka reeler who deducts the advances when he purchases the cocoons.

Reeling.—The cocoons are reeled mostly in Charkas. Only a very small proportion of the total output of silk in the State is "Filature" reeled. In normal times, there used to be about 4,000 charkas and now there are only about 2,000 charkas spread over all the sericultural tracts in the State. Usually, an establishment of charkas consists of one to five reels. But there are establishments of 25 to 30 reels also. The charka reeler is a small capitalist and when his capital is not enough he borrows it from the "Dalals" or "Silk Koties" now mostly stationed in Bangalore City. The "Dalal" charges interest from 8 to 10 per cent. on the advances. He also charges a commission of As. 1-6 per pound of silk sold by him and he charges a similar commission to the purchaser. Part of the silk is sold to local weavers, and the remaining is exported to weaving centres in Bombay and Madras Presidencies and to Hyderabad.

Recently a joint stock company styled "The Mysore Silk Filatures" has been formed with the patronage and support of the Government of Mysore. The Company is taking steps to put up a filature of 200 basias at T. Narasipur and it intends expanding its activities by installing additional filatures in Channapatna, Siddaghatta and Chamaraiahnagar. It is understood that the Government of Mysore will transfer their filature at Mysore to this Company. The formation of this Company will admittedly improve reeling in the State. Similarly, at Kollegal in the Madras Presidency, bordering on the Mysore State, another Silk Filature has been started as a joint stock concern under the auspices and with the support of the Madras Government; and it is expected to give a fillip to the silk industry in that locality.

Silk Weaving.—In the year 1933, there were about 8,000 silk looms in the State. Now there are about 5,000 working looms mostly situated in Bangalore City, Doddaballapur, Anekal and other weaving centres.

Utilization of Silk Waste.—With a view to utilise the silk waste produced for the benefit of the industry in consonance with the findings of the Tariff Board on Silk Industry, the Government of Mysore promoted a Company called "The Mysore Spun Silk Mills, Ltd." in May, 1936. They have subscribed 10 per cent. of the share capital and have sanctioned a number of useful concessions to the Company. The Mills have been erected at Channapatna and the training of operatives has been proceeding. Silk waste for which there was no demand for some years and which was available at one anna per pound, has secured in this mill an assured market, and the price of silk waste has gone up to 6 to 7 annas per pound, this remarkable increase in silk waste prices being partly due also to demand from established spun silk mills abroad. The establishment of this Company has created a profitable demand for the by-product.

4. Present Economic Condition of the Industry.

Since the last Tariff Board Enquiry, there has been no appreciable reduction in the cost of production of mulberry leaves which forms 75 per cent. of the total cost of production of cocoons. The establishment of

mulberry "topes", the planting of "seedling" gardens, the use of artificial manures by all the sericulturists are all measures that take a considerable time to fructify. The Government of Mysore have sanctioned special grants and the Department of Sericulture has already done some work but there has been very little time for any tangible results to be expected. The next important item in reducing costs of production of cocoons is the prevention of losses due to bad seed, by supplying disease-free seed and disease-free seed of higher yielding cross-breeds. Here the Department of Sericulture has done a good amount of work. In 1932-33, the supply of disease-free layings was about 35 lakhs of which about 27 lakhs were Mysore disease-free layings. The supply in 1937-38 increased to about one crore of disease-free layings most of which (about 70 lakhs) are cross-breeds. As even this increased supply meets only about 30 per cent. of the total demand for seed in the State it has not been sufficient to effect a general reduction throughout the State in the cost of production. The Government of Mysore have intensified the seed campaign work and it is expected that in another 5 to 6 years the supply of disease-free eggs can be increased to meet the entire demand and thereby materially bring down the cost of production of cocoons.

5. Output of Silk in the State.

The following statement shows the area under mulberry, the estimated total output of raw silk and silk waste together with their values during the past 12 years:—

Year.	Total area under mulberry (acres).	Production of raw silk (pounds).	Production of silk waste (pounds).
1926-27	53,483	1,160,000	580,000
1927-28	50,194	1,000,000	500,000
1928-29	46,312	920,000	460,000
1929-30	43,624	880,000	440,000
1930-31	42,381	860,000	430,000
1931-32	36,511	740,000	370,000
1932-33	36,653	806,366	403,180
1933-34	32,870	788,880	394,440
1934-35	30,229	755,725	377,862
1935-36	28,528	741,728	370,861
1936-37	25,528	703,696	351,848
1937-38	26,500 (approximate)	795,000	397,500

The area under mulberry which was about 53,000 acres in 1926-27, had reduced to about 36,000 acres when the Tariff Board commenced its enquiry. After the protection to Silk Industry was granted, the area gradually went down from year to year and in the year 1936-37, it fell down to 25,000 acres. In 1937-38, about 5,000 acres were newly planted but due to scanty rainfall, more than 50 per cent. of the newly planted area did not come up well and the addition may be taken as 1,500 acres and this is due to the temporary increase in prices of imported silk during some months of the year. The production of silk 1936-37 was about 1,160,000 pounds and in 1936-37 it was only 703,696 pounds; but in the year 1937-38 the production of silk has gone up to 795,000 pounds partly due to increase in area under mulberry and partly due to increased supply of cross-breed layings.

It may be, however, noted that in areas served by cross-breeds, the average production of silk per acre of mulberry that was only as low as 22 pounds in 1932-33 has gradually gone up as under:—

Year.	Silk per acre. Pounds.
1932-33	22
1933-34	24
1934-35	25
1935-36	26
1936-37	28
1937-38	30

6. Imports of raw silk and other articles competing against silk into India.

Raw Silk.—The imports of raw silk that were as low as about 1½ million pounds in 1931-32 suddenly went up to over 3 million pounds in 1932-33 due to dumping in of foreign silks. Up to 1935-36, the imports fluctuated round about 2 million pounds per year. In 1936-37, the imports fell below the mark of 2 million pounds per year. But in 1937-38, the imports have swelled again to about 2½ million pounds indicating increased competition from foreign countries.

Silk Yarn, Nails and Warps.—In the year 1931-32, the imports were 17 lakhs of pounds. The imports increased to the enormous figure of 30 lakhs of pounds in 1932-33. In 1934-35, 1935-36 the imports were 32 lakhs and 36 lakhs of pounds respectively. The years 1932-33, 1934-35 and 1935-36 may be classed as abnormal years. The normal imports may be figured at about 15 lakhs of pounds per year. In 1936-37 and 1937-38 the imports have exceeded 23 lakhs of pounds. In general, it may be stated that the imports of the above articles are very much above the normal now.

Silk Piecegoods.—The imports of silk fabrics have also increased considerably. The years 1932-33 and 1933-34 may be regarded as exceptional years.

Goods of Silk mixed with other materials.—In the year 1931-32, the imports of these were only 5 million yards and they went up to 13 million yards in 1934-35, fell down to 6 million yards in 1936-37 but have increased to 7 million yards in 1937-38. These imports are very much more than the imports of 1931-32.

Artificial Silk Yarn.—The imports of artificial silk yarn have increased astonishingly. In the year 1932-33 India imported only about 8 million pounds, and these increased to 17 million pounds in 1936-37. In 1937-38, the imports have increased to the colossal figure of 31 million pounds.

Artificial Silk Piecegoods.—The imports of these goods have shown a varying tendency. But the imports for 1936-37 have reached the maximum figure of 102 million yards, and 89 million yards of imports in 1937-38 are no inconsiderable increase over the imports of 1931-32.

7. Average prices of Mysore and Foreign Silk competing against Mysore Silk since 1933.

The average price of Mysore silk that was Rs. 5-8-6 per pound in January, 1933, gradually fell down to Rs. 4-0-6 per pound by January, 1934, as a result of fall in prices of Canton Silk which fell down to Rs. 3-6-5 per pound in 1934 from Rs. 4-14-11 in January, 1933. In 1934 there was a slight improvement at the close of the year. In 1935, the prices of Mysore silk rose from Rs. 4-3-6 in January to Rs. 4-7 in March, but fell to Rs. 4-1 in September, while the prices of Canton Silk gradually rose from Rs. 4-8-6 per pound to Rs. 4-13 per pound in September.

In 1935 imports of Japanese silk were noticeable in the market. The prices rose from Rs. 4 to Rs. 5 per pound for "Whites" and from Rs. 3-14 to Rs. 5 per pound for "Yellows".

Month.	Mysore silk.		Canton silk.		Japanese silk.	
	(Kempniahalli or Sidlaghatta) per lb.		(Bombay rates) per lb.		Bombay rates.	
	Rs.	A. P.	Rs.	A. P.	White.	Yellow.
<i>1933.</i>						
January . .	5	8 6	4	14 11	...	...
March . .	5	7 0	4	12 0	...	...
July . .	4	6 6	4	11 0	...	...
September . .	4	3 6	4	7 0	...	...
<i>1934.</i>						
January . .	4	0 6	3	6 5	...	...
March . .	4	3 6	3	14 0	...	...
July . .	4	0 6	4	0 0	...	...
September . .	4	5 0	4	4 0	...	...
<i>1935.</i>						
January . .	4	3 6	4	8 6	...	...
March . .	4	7 0	4	10 0	4 0 0	3 14 0
July . .	4	3 6	4	10 0	4 3 0	4 1 0
September . .	4	4 0	4	13 0	5 0 0	5 0 0
<i>1936.</i>						
January . .	4	6 0	5	0 0	5 0 0	4 14 0
March . .	4	3 6	5	0 0	4 15 0	4 15 0
July . .	4	1 0	4	13 0	5 0 0	4 14 0
September . .	4	2 0	4	15 0	5 5 0	5 4 0
<i>1937.</i>						
January . .	5	5 0	5	11 0	6 12 0	6 12 0
March . .	5	14 0	5	9 0	6 11 0	6 11 0
July . .	5	5 0	5	4 0	6 14 6	6 12 0
September . .	5	2 0	5	6 0	6 10 0	6 5 0
<i>1938.</i>						
January . .	4	9 6	4	13 0	5 9 0	5 8 0
March . .	4	9 6	4	13 0	5 13 0	5 11 0
May . .	4	8 0	4	14 6	5 7 0	5 8 0
June . .	4	8 0	3	15 6	5 4 0	5 6 6

In 1936 the prices of Mysore silk fell from Rs. 4-6 per pound in September due to a similar fall in foreign silk prices.

In 1937 the prices of foreign imported silks rose appreciably, and due to this rise there was rise of prices in Mysore silk also temporarily.

But by the end of November, 1937, the prices of foreign silks began to go down appreciably. The prices of Chinese silk that were Rs. 4-15 per pound in September rose to Rs. 5-9 per pound in March, 1937, while those of Japanese rose from Rs. 5-5 per pound to Rs. 6-14-6 per pound in July, 1937. At the beginning of 1938, they were at Rs. 5-9 per pound.

The prices of Canton silk are now round about Rs. 4 per pound while that of Japanese are round about Rs. 5-4 per pound and those for Mysore silks are Rs. 4-8 per pound. It may be observed that the prices of Canton silk which is coming in very large quantities in Bangalore market have again fallen down to Rs. 4.

There has been a fall of about Rs. 1-0-6 per pound in the prices of Mysore silk from January, 1933, to May, 1938, due to the increased competition of imported foreign silks. The rise in prices during some months of 1937 was *only temporary*.

8. *Average declared values of Raw Silk and Silk Fabrics.*

	Raw silk, (per pound).	Silk Fabrics, (per yards).
	Rs. A. P.	As. P.
1932.		
April	4 9 0	8 6
July	3 14 2	8 4
September	3 5 6	8 3
December	3 4 5	8 3
1933.		
April	3 3 0	8 0
July	2 7 1	8 2
September	3 3 2	6 9
December	2 15 11	6 7
1934.		
April	2 12 4	8 0
July	2 11 0	5 6
September	2 11 4	5 2
December	2 7 0	5 7
1935.		
April	2 11 6	5 3
July	2 5 6	5 1
September	2 13 1	5 4
December	2 15 1	6 0
1936.		
April	2 9 1	4 10
July	2 7 2	5 11
September	2 12 11	6 0
December	2 12 8	6 6
1937.		
April	3 8 10	6 7
July	3 4 11	5 9
September	4 0 9	7 3
December	3 10 3	6 8
1938.		
March	2 15 7	5 11
June	2 8 0 (calculated)	...

The average declared values that were Rs. 4-9-0 per pound in April, 1932 went down to Rs. 3-4-5 per pound in December, 1932, and in December, 1933, they were Rs. 2-15-11 and in December, 1934, Rs. 2-7. There was an increase by about As. 4-6 per pound in April, 1935, and in December, 1935, the declared value was only Rs. 2-15-1. In December, 1936, it was Rs. 2-12-8. But in April, 1937, i.e., the year in which there was a temporary rise in prices, the declared value was as high as Rs. 3-8-10 and in September of that year it went up further to Rs. 4-0-9. But there has been a fall since then and in June, 1938, the declared value stands as low as Rs. 2-8. Similarly, in the case of silk fabrics there has been a considerable fall in declared values in March, 1938, when compared to September, 1937, and as compared with 1933 declared values.

It may be mentioned here that Japanese and some Canton silks are re-reeled while Mysore charka silks are not re-reeled. Therefore in considering the case for protection due importance should be attached to this point.

9. Cost of Production of Mysore Silk.

There has been no appreciable alteration in the cost of production of Mysore silk as measures to reduce cost of production take a very long time to be effective. As already stated, the cost of mulberry leaf forms about 75 per cent. of the cost of production of cocoons. The planting of mulberry topes, raising of seedling ga dens, etc., take long time. The other important measure is the use of disease-free eggs and eggs of cross-breeds compared with the year 1933, the supply of this has considerably increased but it yet forms only about one-third of the total demand.

10. Government Assistance to Industry.

The Government of Mysore have sanctioned increased grants for the re-organization of the industry as urged by this Association in its "Note on the re-organization of and assistance to Silk Industry in Mysore". (Copy of the note is enclosed herewith.) The expenditure of the Department of Sericulture that was only Rs. 1,04,000 in the year 1933-34 has increased to Rs. 2,18,000 in the year 1937-38 and is expected to increase further during 1938-39. This indicates the progressive and energetic action taken by Government. The Government promoted the Mysore Spun Silk Mills in 1936 and invested in it Rs. 85,000 besides having given other substantial concessions to it. They have recently sanctioned generous concessions for the establishment of Silk Filature in Mysore State. The Company has been floated and construction work has already commenced. Additional research work of great practical value has been undertaken with the aid of Government of India at the Research Station at Channarayana.

11. Quantum of Protection.

The need for increased protection to Silk Industry is imperative for the following reasons:—

- (1) The cost of production of Mysore Silk is practically the same as the last enquiry due to reasons already stated.
- (2) The imports of raw silk and other articles competing against Indian Silk Industry have increased.
- (3) The average prices and declared values have gone down considerably since 1933.
- (4) India is the only country in the Empire which produces silk. The importance of silk in war measures is a recognized fact and if Britain has to be self-sufficient in war materials, the Silk Industry in India should be adequately protected.
- (5) Given adequate protection and time the industry will be in a position to meet the entire Indian demand and also the demand of silk throughout the British Empire for clothing as also for use as a war material.

These unmistakably indicate the need for protection. The Tariff Board, after having gone fully into the case for protection to Silk Industry in India, determined the fair selling price of Indian silk at Rs. 6-2-6 per pound while the average *ex-duty* price of imported filature silk was about Rs. 3-12 per pound, showing a difference of Rs. 2-6-6 per pound and they, accordingly, recommended a uniform duty of Rs. 2-6 per pound or in the alternative a duty of 50 per cent. *ad valorem* whichever was higher. By the time the Government of India took action the prices had fallen down by Re. 1 per pound. Nevertheless, the measure of protection sanctioned was only 25 per cent. *ad valorem plus* As. 14 per pound. This then worked only at about Rs. 1-10 per pound. The average declared value of foreign imported silk was Rs. 3-11 per pound in 1932-33. In 1936 it was Rs. 2-11 and in 1937 there was a temporary rise and in June, 1938, it is Rs. 2-8, i.e., about Rs. 1-4 less than when the Tariff Board sent up their recommendations. Similarly, there has been considerable fall in the average declared values of silk fabrics.

This Association has repeatedly pointed out the need for increased protection to Silk Industry both in its representations to Government of India and at its deputation at Simla in September, 1936. The Association re-iterates its demand for increased protection for the very strong reasons stated above.

The measure of protection that is necessary is such duty as will bring up the price of imported Canton (Chinese) silk to Rs. 6-2 per pound the fair selling price of Mysore Silk. The present average calculated *ex-duty* price is Rs. 2-8 for the month of June, 1938. The difference between the fair selling price of Mysore silk, viz., Rs. 6-2 and Rs. 2-8 (the *ex-duty* price of imported silk) is Rs. 3-10 per pound which is therefore the duty required as based on the present prices.

Silk Yarns, Noils and Warps.—Similarly, the same rate of duty is required on thrown silks, spun silks, etc.

Noils.—At present all the noils required for India are being obtained from abroad. As "Noils" will be manufactured now for the first time in India in the Spun Silk Mills, referred to in paragraph 3 above, it is requested that this may be subjected to the same rate of duty as raw silk, as otherwise the local industry can have no chance of success.

Silk Piecegoods.—The duty on Silk Piecegoods should be raised so as to correspond with that on raw silk as imposition of increased duty on raw silk alone without a corresponding increase on manufactured silk goods will only tend to increase the imports of the latter thereby affecting handloom weaving industry.

Period of Protection.—The period of protection has been too short for any measures to reduce costs of production to be effective. The protection should not only be adequate but should be granted for a period of fifteen years so that the measures to reduce costs of production might be fruitful.

12. Effect on Handloom Weaving Industry and increased cost to Consumer.

The handloom weaver will not be affected as India will gradually be able to meet the demand of even high grade silk as filatures are being installed. The Silk Filatures at Kollegal have already commenced work and the Mysore Silk Filatures have already commenced building and other operations, and year by year, there would be increased production of high grade silk.

Every measure of protection necessarily means increased cost to the consumer. But this is largely compensated for by the decrease in import money paid and the development of the industry to the country providing occupation to several lakhs of families in India. The industry is of vital importance to the Empire in defence measures as India is the only country in the Empire that produces silk.

Mysore is admirably fitted for mulberry cultivation and rearing of silkworms. There is an unlimited scope for the expansion of the industry

as in normal times it undoubtedly is an excellent subsidiary occupation to agriculture. There is abundant demand for raw silk in India. Incidentally, India is the only producer of silk in the Empire. The re-organization of the industry has already been initiated and it is only a question of time for all the results to become apparent.

Enclosure B.

Copy of letter from the President, Mysore Silk Association, Bangalore, to the Secretary to the Government of India, Department of Commerce, Simla, No. 216, dated the 3rd October, 1933.

Subject: INADEQUACY OF PROTECTION TO SILK INDUSTRY.

I have the honour to state that the Mysore Silk Association has brought to the notice of the Government, through telegrams and letters (copies of which are enclosed for ready reference), that the protection given to the Indian Silk Industry is absolutely inadequate. The attention of the Government of India was drawn to the inadequacy of the above protection both in the Legislative Assembly and the Council of State, during the February-March Sessions, and as many as 9 members of the Select Committee on the Textile Protection Bill urged in their minutes of dissent that the duty should be raised.

2. Though more than five months have elapsed since the protective duties came into operation, the effect of the duties sanctioned by the Government has not, so far been felt even to the slightest extent. On the other hand, there has been a fall in prices of Silk Fabrics, Silk Mixtures and Spun Silk and an appreciable increase in the imports of the above materials. Similarly there has been an increase in the imports of Artificial Silk.

3. *Raw Silk*.—The quantities of raw silk imported during the period 1st April, 1934, to end of July, 1934 (for which figures are available), amount to 545,559 lbs. as against 454,004 lbs. in the same period of the previous year, showing a substantial increase and thus clearly indicating the utter inadequacy of the protection given to raw silk.

4. *Silk Fabrics*.—The imports of silk fabrics for the period of four months ending with 31st July, 1934, have reached the enormous figure of about 14 million yards as against 12 million yards in the corresponding period of 1933, and this has adversely affected the Indian Silk Weaving and Sericultural Industries.

5. *Fabrics Mixed with Silk*.—The imports of silk fabrics mixed with other materials during the same period have nearly doubled, being about six million yards as against 3½ million yards in the previous year.

6. *Silk-Yarn*.—While the total imports of silk-yarn in the 4 months ending with 31st July, 1933 amounted to 580,931 lbs., the imports of silk-yarn made of waste and noils alone, i.e., spun silk, during the same months of the current year have gone up to 975,339 lbs. Thus spun silk also has become a substantial factor in the import of foreign silk and adds its weight to the crushing competition against the Indian Silk Industry. It is, therefore, more than ever necessary to levy an effective protective duty on imported spun silk.

7. *Artificial Silk Yarn*.—The Tariff Board, in their Report in Article 197, referring to artificial silk yarn, state: "We have noted the tendency on the part of weavers specially in Bombay to use it in increasing quantities as a substitute for natural silk. This tendency is encouraged alike by its extreme cheapness and by the comparatively low rate of duty imposed on it. We believe that if its price is left at its present low level it will drive out all other kinds of silk yarn and render our whole scheme of protection ineffective. At the same time we do not believe in putting up its price to

the same level as that of natural silk as there is a well recognized difference of quality between the two. On a balance of these considerations we recommend that it should be subjected to a specific duty of Re. 1 per pound. This will still maintain a difference of at least one rupee per pound between it and the cheapest imported silk." The anticipations of the Tariff Board have, unfortunately, proved only too true. The imports of artificial silk have more than doubled, having risen from 2,627,277 lbs. to 5,597,000 lbs. during the period under review. It is necessary in the interests of the silk industry to enhance the duty on artificial silk and its fabrics to the level proposed by the Tariff Board.

8. From the above, it is clear that the duties given now are absolutely inadequate to protect the Indian Silk Industry. This Association is therefore of opinion that if the protection given to the industry is to prove at all useful and effective, the duties on Raw Silk, Silk Fabrics, Silk Mixtures, Spun Silk, Artificial Silk and its products, should be enhanced to at least the pitch proposed by the Tariff Board. I request that immediate action may be kindly taken to enhance the duties as otherwise the Industry is bound to perish and the object of the protection now given will be completely frustrated.

9. In this connection I venture to invite attention again to paragraphs 145 to 147 of the Tariff Board Report on the subject of the Customs Classification of imported raw silk according to colour and port of shipment instead of according to quality. The Board have, in unmistakable terms, denounced the then existing method of classification as unsatisfactory and causing serious injury both to manufacturers and importers. They have characterised the system as 'mysterious', 'confusing', 'illogical' and 'inequitable'. They point out that a system under which, to take one example, silk of the highest quality costing Rs. 5-8 per lb. is grouped with coarse silk costing Rs. 2-15, merely because both are yellow in colour and are shipped from Shanghai, must necessarily lead to the under-taxation of some varieties of silk and over-taxation of others, and they record the conclusion that "Simple averaging of imported prices, besides being inaccurate and unscientific, would result in an excessive amount of protection, if the cheapest imports arriving in insignificant quantities are given the same weight and importance as the more expensive and representative imports". For these reasons, the Tariff Board have recommended that the present method of classification, which gives rise to a description "utterly unknown to the trade except the 3 or 4 large importers who monopolise the trade in raw silk", should be revised and that imports should be divided into the four classes mentioned by them on page 123 of the Report. As an instance in point to show how the present method of classification has affected the industry, I may mention the quality coming under the description of "White, other kinds" which is now called upon to pay a duty of only Rs. 1-9-6 though on the basis adopted by the Government of India for the purpose of determining the additional duty required under the Safeguarding of Industries Act (*i.e.*, the 1928 prices as per tariff valuation reduced by 37 per cent. to allow for the general fall in prices), it should bear a duty of Rs. 2-11-6 as shown below:-

Quality of silk.		Basic price.	Ex-duty price Jan.-Mar. '34.	Difference showing duty required.	Actual duty now paid.
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
White, kinds Canton)	other (<i>i.e.</i> ,	5 1 3	2 5 9	2 11 6	1 9 6

As a result of this low duty on this quality, it is increasingly dominating the market, and is, in the words of the Tariff Board "driving out all Indian Silks from its accustomed markets". So far as the Association

is aware, there should not be any difficulty in adopting the recommendation of the Tariff Board; for, as will be seen from the Report, the Bombay Customs Department was able to furnish all the necessary details required to enable the Board to reclassify the imports into Bombay in the manner proposed by them. This Association is of opinion that so long as the duty is uniform for all qualities and bears no relation to the fall in prices of particular classes of silk the industry will find itself helpless to a very large extent in spite of the protection afforded to it.

10. I therefore beg earnestly to urge on behalf of the Mysore Silk Association that along with the question of enhancing the duties on raw silk and silk products as prayed for in para. 8 above, an immediate enquiry may be made in regard to the equitable application of the principle on which the duty is levied, as the industry feels that while the tax is high enough on certain qualities others such as "White, other kinds" mentioned above, on which they very existence of the industry in the country depends, are not only not taxed adequately, but practically receive a bounty which it could never have been the intention of Government to confer on them.

11. It is, indeed, a matter of deep satisfaction to those interested in the industry to have had the generous assurance of the Hon'ble The Member for Commerce that if the duty failed to achieve the object that Government had in view, they would not fail to reconsider the position. The Hon'ble Sir Joseph Blore went further and emphatically asserted that Government would not feel justified in allowing the protection given to raw silk to be defeated by still further serious lowering of prices. The trend of events since the Hon'ble The Commerce Member gave the above assurances has shown that the further action which he proposed to take if conditions did not improve should not be any longer delayed, as the industry is going down steadily, day by day, as evidenced by the fact that in this State alone no less than 8,500 acres of mulberry are said to have gone out of cultivation within the last few months according to authoritative information derived from the Revenue Department, and it is found impossible to arrest the decline with the present low prices of silk and its products due to foreign competition.

This Association begs to urge that, in the circumstances, the Government of India may be pleased to give effect without delay to the assurance given by The Hon'ble The Member for Commerce by taking the necessary further action on the lines suggested above to increase the protective duty and also to revise the classification and thus save the industry not only in Mysore but throughout India from its threatened collapse.

Enclosure C. [Not printed.]

Enclosure D.

Note on the Inadequacy of Protection to Silk Industry.

HISTORY OF SILK INDUSTRY.

Origin of the Industry and the interest taken by Government in the Industry.

AUTHORITY.

"Some account of silk in India specially the various attempts to encourage and extend sericulture in that country":—

Compiled by J. Geoghegan, Under-Secretary to the Government of India, Department of Agriculture, Revenue and Commerce. Government of India Publication 1872.

"The date of the introduction of the silk worm into India is still an open question. Indeed the very name "Desi" applied to the oldest species of silk worm in Bengal shows that even the tradition of a foreign origin for the insect has died out.

"The value of silk as an article of trade was appreciated by the East India Company at an early period of its existence. Trade in silk was commenced by the East India Company in 1670. In 1710 a new species of worm was introduced in Bengal. The trade of the East India Company in Indian silk was increased in the middle of the eighteenth century. In 1757 the Company sent out to Bengal a gentleman—Mr. Wilder, to improve the rearing and the reeling of silk. In 1765 another gentleman was engaged by Government to carry on the improvements commenced by Mr. Wilder. Advertisement was published in 1772 inviting ryots to cultivate mulberry in addition to their actual holdings and declaring that new or waste land, laid out or reclaimed for this purpose should be held rent free for two years and at half the rates for the third year. This measure resulted in a large increase of exports. The Directors in 1769 decided to introduce into Bengal the exact mode of reeling practised in the flatures of Italy and other parts of the Continent and for this purpose sent out a staff of reelers and mechanics chosen for Italy and France with all appliances. In 1771 the Bengal Government obtained from China new breeds of forms and new varieties of mulberry and in fact, the mulberry was planted in the Governor-General's garden. In 1773 the importance of encouraging the cultivators of mulberry was again urged on the Bengal Government by the Court of Directors. From 1776 to 1835, Bengal silk drove all competitors except Italian and China silks from the English market."

In 1812 the Court of Directors directed the Local Government to purchase private flatures, to erect flatures and to establish mulberry plantations on account of Government. A note given by Dr. Roeburgh on the improvement of mulberry was circulated in 1811 by the Board of Trade to all commercial residents.

In 1828 funds were set apart to carry on experiments in mulberry cultivation, rearing of worms and improvement of reeling. An experimental flature was started at Howrah in 1831.

After the East India Company severed the connection with the Government of India, the industry was in a neglected condition, but in 1886 after the visit of Sir Thomas Wardle to Calcutta, steps were again taken by Government to develop the industry. "In 1896 the Government of Bengal set apart funds for starting nurseries, for research work, and a silk committee was formed by Government and the European firms interested in silk trade, and from 1889 the committee began to receive grants for this work. From 1899 to 1907 seven nurseries were opened for the issue of disease-free seed. In 1903 a committee was appointed by the Government of Bengal to consider the position of the industry and to formulate proposals for its development. On the report of the above committee, a permanent silk committee was formed to administer the scheme of development. Apart from other items of work, experts from France were engaged to improve the industry." In 1915, the Government of India appointed Messrs. H. Maxwell Lefroy and E. C. Anson to carry on an enquiry into the silk industry in India.

The report of Messrs. Maxwell Lefroy and E. C. Anson was prepared in 1916, but very little action was taken by the Government of India on the recommendations in the report.

The main centres in India where the Sericultural Industry is carried on are Mysore, Bengal, Kashmir, and Madras (Kollegal Taluk of Coimbatore District). A small quantity of mulberry silk is being produced in Assam, the Punjab and Burmah.

The Mysore silk industry is an old one, supposed to have been introduced by Tippoo Sultan between 1780 and 1790 from China. It is significant

that the worm is of a peculiar breed and the cocoon remarkably uniform in quality. The industry in Kollegal Taluk of Coimbatore District is on the same lines as in Mysore. Considerable amounts are being spent by the Governments of Mysore and Madras to develop the industry.

The development of the silk industry in Kashmir was taken in hand in 1869 and the State developed the production which was made a State monopoly.

Indian Production.

The production of raw silk in India which was about 24 million pounds in 1923-24 increased to 2½ million pounds in 1926-27. Due to increased imports of cheap foreign silks into India from 1929-30, there has been a rapid fall in the Indian production. In the years 1932-33 the total production has fallen down to the low figure of 1½ million pounds. The table gives the production of raw silk in India in round figures from 1923-24 to 1932-33.

Year.	Qty. in lakhs of pounds.
1923-24	22.79
1924-25	23.02
1925-26	25.62
1926-27	27.43
1927-28	26.63
1928-29	24.13
1929-30	23.53
1930-31	22.21
1931-32	20.70
1932-33	15.00

The decline in the production of raw silk in India is due entirely to the growing imports of the foreign raw silks due to the unprotected nature of the Indian industry and to the State aid given in China and other countries.

Imports of Raw Silk into India.

The imports of raw silk into India which was 14 lakhs of pounds in 1924-25 increased to 32 lakhs of pounds in 1932-33. In 1933-34 the imports fell to 2,379,197 pounds and for the first ten months of 1934-35 the imports are 1,742,600 pounds. The fall in imports is attributable to the fact that the American market for silk has improved due to the National Industrial Recovery Act there, and also to the increased imports of silk yarns into India which are displacing raw silk during the ten months of 1934-35 namely 2½ million pounds against 2 million pounds for the same period in 1933-34.

Exports of raw silk from India.

Year.	Quantity lbs.	} This includes silk- waste also [vide 19 of Tariff Board Report].
1860-61	1,555,656	
1870-71	2,131,399	
1880-81	1,302,576	
1890-91	1,760,611	
1900-01	1,604,275	
1910-11	1,850,551	
1920-21	

Year.	Quantity lbs.	
1925-26	132,030	Raw silk only.
1926-27	120,359	
1927-28	163,903	
1928-29	143,250	
1929-30	157,212	
1930-31	26,156	
1931-32	5,160	
1932-33	5,432	
1933-34	11,642	
1934-35 (ten months)	20,735	

Imports of raw silk into India.

Year.	Quantity lbs.	Average declared value of imported silk per lb.
1925-26	1,320,000	...
1926-27	1,780,000	6.3
1927-28	2,360,000	6.2
1928-29	2,130,100	5.9
1929-30	2,170,000	5.7
1930-31	1,930,000	4.6
1931-32	1,560,000	3.9
1932-33	3,190,000	3.8
1933-34	2,379,197	3.01
1934-35 (for ten months)	1,742,600	2.67

It is seen from the foregoing table that India which used to export large quantities of raw silk is practically not exporting any silk now. It is also seen that as imports into India have increased, exports from India have decreased as production in India has fallen down due to the competition from foreign countries.

Causes of Decline of Exports from India.

The decline in the exports of raw silk from India is due entirely to the foreign competition and lack of assistance from Government. This is borne out by the enquiry of the Tariff Board, extracts from which are quoted below:—

"30. As a result of these circumstances the export of Indian raw silk whether in the form of reeled silk or silk waste and cocoons has practically ceased. This has specially affected the filatures existing in India as they depend for their custom largely on the foreign market, since there is not much demand in India for the high grade silk at the price at which they can produce it. The charkha-reeling industry catering exclusively for the home market, besides suffering from the fall of price has also been hit hard by the loss of its only market for silk waste which used to provide the major portion of its profit. The circumstances in which the world demand for silk fell after the Wall Street crisis in 1929 and China turned increasing attention to India have already been described in the preceding Chapter. Before this China used to export her best silk to Europe and America, and her exports to India consisted mostly of coarse hand reeled products which were used for hand-sewing or for borders and "palays" or "anchals" of the cheap class of saris. Since 1915 medium qualities which compete more seriously with the hand-reeled products have been coming in increasing quantities. Owing to the failure of the American demand unusually large

quantities of this silk including high grade steam flature silk were exported to India at uneconomic prices with which Indian hand-reeled products could not possibly compete and a grave crisis was created for the indigenous industry."

"It is on record in the American Silk Digest Weekly and our information has been corroborated by the Chinese Vice-Consul at Bombay that the price of silk mortgaged with Chinese banks fell below the amounts advanced. We further understand from the Chinese Vice-Consul that the banks in the silk provinces of Cheeking and Kiangsu, on the refusal of their customers to redeem their mortgages, were relieved of their embarrassment by a Government bounty of 100 taels per bale of 100 kin (132.3 lbs.) of silk so mortgaged. Before this the export duty on all Chinese silk of 17½ Canton dollars per picul of 133 lbs. had been abolished. The Silk Digest Weekly reported that in May and June, 1932, out of the total of 3,500 bales sold in Canton in those months as many as 2,900 bales were sold to India. This explains the large imports of Chinese silk into India in the latter part of the last year. It would appear from the above figures that thanks to its unprotected condition, India imported in 1932-33 more Chinese silk than either Europe or America."

"31. The unprecedented situation so created by these imports has been further complicated by greater internal competition. Kashmir silk deprived of its accustomed European market is trying to find a large outlet in India at uneconomic prices. Besides these direct encroachments on the home market, there are indirect factors which have reduced its size. The large increase since Japan went off the gold standard of imports of silk, artificial silk and mixed goods, which seriously compete with the products of silk handlooms has lowered the capacity of weavers to buy the comparatively expensive Indian natural silk, and has compelled them to use more and more of cheap foreign substitutes including spun silk and artificial silk yarn. The depression in the weaving industry has contracted the weaver's total demand for yarn and has had the effect of reducing demand for raw silk in India and the general diminution of purchasing power has acted in the same direction. Assailed thus on all sides, only a complete re-organization including a thorough overhauling of its cost of production can save this ancient Indian industry from extinction."

"35. For many of the defects mentioned above, Government neglect in the various areas has been largely responsible. The sericulture industry is a unique industry, differing from other industries in this sense that in its modern form it cannot stand without Government organization and assistance. *Pebrine* infection, a hereditary disease of the silk worms and the chief obstacle to economical production cannot be controlled without Government legislation nor can the best and cheapest silk be produced without a central scientific research organisation, nor can it be marketed at the best price without being scientifically graded and tested in a conditioning house. It is difficult for these institutions to grow in a backward country like India without Government assistance. Our long historical survey shows that the industry flourished in Bengal as long as the East India Company took an interest in it. Since 1835, the industry has alternately revived and declined with the fluctuations in the interests of Government. This has become keen at times of silk famines in Europe as for instance in 1870 and 1915, when inquiries were ordered, and has subsided at times of plenty. If the industry has survived at all, it has done so on account of its inherent vitality. The need of Government assistance has been emphasised by Mr. Norton Breton, a great London authority on silk, in a lecture on "Sericulture in the British Empire" before the Royal Society of Arts in the following words:—

"Why should the Governments of those countries be so concerned in the establishment of sericulture and why should not private enterprise do it? I am all out for as little Government interference as possible but in the case of sericulture it is necessary to have the most stringent

rules and regulations in regard to the industry if it is to prove successful. Silkworms are prone to infectious diseases and the reproduction of eggs has to be very strictly controlled. However, careful private enterprise, in its own interests might be to keep these diseases at bay, if there is no control, any Tom, Dick or Harry could start the business of egg reproduction and start disease in the country. I think it is better that Governments should encourage the inhabitants to start the industry and exercise the necessary supervision in its early stages."

"36. That Government assistance in India is essential is evident from the fact that the industry is at its best in those parts of India where it receives the greatest help and encouragement from the State, viz., Kashmir and Mysore. Their industries have been literally created from their ashes by State action after both had been laid low by disease. They now show a more advanced sericultural practice than Bengal in spite of its longer tradition and greater fertility."

* * * * *

India which was exporting large quantities of silk to Europe formerly, lost not only that Market but is being ousted out of its home-market. This unfortunate condition of the industry is due to lack of assistance from Government during the past so many decades. Maxwell Lefroy went into the whole question of organizing the silk industry so far back as 1915 at the instance of the Government of India. He along with Mr. E. C. Ansorge submitted a valuable report to the Government of India and made various proposals for re-organizing the industry. Had the Government taken action on that report the condition of the industry would not have been what it is now; it could have faced competition from foreign countries.

How important it is for the Government to render substantial assistance to silk industry is very well illustrated from the following extracts taken from the Tariff Board Report (*vide* 205). "In no part of the world has the industry flourished without such assistance. The history of the sericultural industry in France is practically the history of the bounties paid to it from time to time by the French Government to enable it to make necessary improvement and enhance its competing power. Italian practice in this respect has not been dissimilar. The amounts which the Japanese Imperial Government and each prefectural unit spends on the industry are about 90 lakhs a year at the current rate of exchange. These financial sacrifices have been more than justified by the enormous incomes which these countries obtain from their respective silk industries. We believe that any expenditure incurred on this Indian silk industry will be returned many times over in the shape of increased wealth and prosperity."

Even a poor and disorganized country like China has taken steps and has been spending large amounts to re-organize the silk industry. Experts have been engaged for improving the industry on the Japanese model. Two international associations have been working for the improvement of the industry and these receive financial assistance from the Chinese Government. The export duty on silk has been abolished and bounties are being paid to stimulate exports. A special duty on the import of artificial silk has been levied to finance the development of the silk industry. In the face of this organized and combined effort on the part of foreign countries there is no wonder that Indian silk industry is threatened with its extinction unless effective and adequate protection is given to it. The Tariff Board after thorough investigation have recommended that the industry should be afforded protection. The position has become worse since the Tariff Board submitted their recommendations. The protection given to the industry by the Government of India is on the very face of it absolutely inadequate. In paragraph 207 the Tariff Board have emphatically stated as follows:— "We have based our scheme of protection on the ex-duty prices of various qualities of silk set out in paragraph 183. If prices as represented by the ex-duty prices of Rs. 3-11 per lb. of Canton steam filature silk fall below this level, there is a risk of our measure of protection proving inadequate."

As anticipated the price of Canton steam filature silk has fallen down to about Rs. 3 per lb. It is therefore absolutely necessary to enhance the pitch of duty sufficiently to compensate for the fall in *ex-duty* prices of Canton steam filature silk.

Imports of Silk Yarns, Noils, Warps, etc.

The demand of the silk weaving industry of India consists not only of demand for raw silk but also for silk yarns, noils and warps. From the table given below it is seen that the imports into India of the above articles increased from 1·356 millions pounds in 1927-28 to 2·017 million pounds in 1928-29 and to the abnormal figure of 3·010 million pounds in 1932-33. Already for the year 1934-35 (ten months) the imports of silk yarns have gone up to 2·7 million pounds. It is necessary to point out that the imports into India from China which were only 307 thousand pounds for the first ten months of 1931-32 rose to 424 thousand pounds in 1934-35. Similarly the imports from Japan rose from 105 thousand pounds for the ten months of 1931-32 to 1·5 million pounds in the corresponding period (April to January) of 1934-35. This is alarming as China and Japan with cheap costs of production have immense capacity for flooding Indian market with silk yarns and prepared silks.

Total Imports of silk yarns, noils, and warps into India from all countries.

Year.	Quantity. Lbs.
1928-29	2,046,760
1929-30	1,956,014
1930-31	1,424,798
1931-32	1,710,366
1932-33	3,010,189
1933-34	2,027,681
1934-35 (ten months)	2,681,941

Imports from China and Japan.

	10 months in 1931-32.	10 months in 1934-35.
China	307,799	424,986
Japan	105,072	1,459,952
	January, 1933.	January, 1935.
China	47,689	41,470
Japan	94,617	207,211

Imports of Silk Goods Mixed with Other Materials.

The imports into India of silk goods mixed with other materials have increased phenomenally since 1929-30. The total quantity imported in 1928-29 was only 2·864 million yards. It rose to 4·6 million yards in 1930-31, and to 10·1 million yards in 1932-33 and to 9·9 million yards in 1933-34. For the ten months of the current year the imports are 11·3 million yards. Japanese imports of these goods which were for the first ten months of 1931-32 only 3·237 million yards rose to 5·781 million yards for the corresponding period of 1933-34 and 9·95 million yards in 1934-35. In January, 1933, the imports of the above Japanese goods were 670 thousand yards while in 1935 these have increased to 967 thousand yards. This abnormal increase in the imports of these goods has adversely affected the Indian silk industry.

Goods of silk mixed with other materials. Total Imports from all countries.

Year.	Quantity.
	Yds.
1928-29	2,864,778
1929-30	2,989,849
1930-31	4,600,241
1931-32	5,089,645
1932-33	10,103,272
1933-34	9,838,009
1934-35 (ten months)	11,354,348

Imports from Japan alone.

	Yds.
1931-32 (ten months)	3,237,513
1934-35 (ten months)	9,953,831
January, 1933	832,134
„ 1934	710,027
„ 1935	967,463

Imports of silk piecegoods.

The imports into India of silk piecegoods in 1928-29 were about 2·8 million yards. This has risen to 3·5 million yards in 1932-33. For 1933-34 the imports were as much as 4·1 million yards. In 1934-35 for ten months, the imports are 2·8 million yards. Comparatively there is a fall in imports of silk piecegoods but there has been an enormous increase in the imports of silk mixtures. The table of imports of silk piecegoods is given below:—

Silk Piecegoods Total Imports from all countries.

Year.	Quantity.
	Yds.
1928-29	21,872,848
1929-30	22,924,625
1930-31	16,751,831
1931-32	19,924,223
1932-33	34,957,931
1933-34	41,123,380
1934-35 (ten months)	28,096,945

Imports from Japan alone.

(During ten months.)

	Yds.
1931-32	9,033,587
1932-33	21,870,996
1933-34	27,444,244
1934-35	23,534,698

In January each year from Japan alone.

	Yds.
1932	1,264,303
1933	2,902,445
1934	3,579,821
1935	2,650,177

Imports of artificial silk yarn into India.

The imports of artificial silk into India were only 5.77 million pounds in 1926-27. These increased to 11 million pounds in 1932-33. For the first ten months of 1934-35 the imports are 13.8 million pounds. The imports in January, 1932, were 509 thousand pounds only and in 1935 increased to 1,636 thousand pounds. While imports of Japanese artificial silk into India were only 105 thousand pounds during the ten months (April to January) of 1931-32 they have increased to 7,364 thousand pounds in the same period of 1934-35. In this connection it is desirable to quote the following from the Tariff Board Report, "Artificial silk yarn which is itself cheap and which is being encouraged by a lower rate of duty has evidently replaced both imported raw silk and Indian raw silk to a marked degree. We agree that artificial silk yarn is not strictly comparable with natural silk. But its extreme cheapness has undoubtedly led to its substitution for natural silk on a large scale. We have noted the tendency on the part of weavers specially in Bombay to use it in increasing quantities as a substitute for natural silk. We believe that if its price is left at its present low level it will drive out all other kinds of silk yarn and render our whole scheme of protection ineffective."

Total Imports of Artificial Silk Yarn into India from all countries.

Year.	Quantity.
	Lbs.
1926-27	5,776,100
1927-28	7,509,600
1928-29	7,668,100
1929-30	7,353,000
1930-31	7,119,800
1931-32	7,962,500
1932-33	11,002,100
1933-34	9,808,919
1934-35 (ten months)	13,779,158

Imports in January each Year.

	Lbs.
1932	509,052
1933	420,137
1934	147,757
1935	1,636,183

Imports from Japan alone during ten Months.

	Lbs.
1931-32	105,640
1932-33	1,797,632
1933-34	1,299,745
1934-35	7,364,581

Price of imported silk in the Indian Markets.

The following extracts from the Tariff Board Report on Indian Silk Industry explain the position clearly:—

* * * * *

“The imported silk enters India mainly through Bombay, Tuticorin and Madras, to meet the demand though not entirely of Southern India. While Bombay caters for the needs of the whole country, especially Western and Northern India, Canton filature silk has driven out Bengal silk entirely and Kashmir silk partly from the Benares, Amritsar, Surat and Nagpur markets. It has a stronghold in the Bangalore and Kumbakonam markets.” (Paragraph 149 of Tariff Board's Report.)

* * * * *

“India would have had nothing to fear if it had lost the foreign markets, but had retained its home markets which it has supplied from time immemorial. Chinese competition in it was not a serious factor so long as China mainly supplied the cheapest waste product silks produced by the sweated labour of old women for which India has no substitute. The character of Chinese imports changed in 1910 or so when she began to send more and more of her better qualities of her filature and re-reeled silks, and Chinese competition inside India became only serious when a falling exchange favoured her imports and has become deadly during the last three years when the loss of American Market and the *State bounty* has completed what depreciating exchange had begun. We are convinced that the superior qualities of silk which was exported to India in such large quantities in the year 1931-32, and 1932-33 were sold at *uneconomical prices*.” (Paragraph 151 of Tariff Board's Report.)

* * * * *

The average declared value of Canton silk which was Rs. 8-6 per lb. in 1922-23 fell to Rs. 5-7 in 1929-30, to Rs. 4-5 in 1930-31, to Rs. 4 in 1931-32 and to Rs. 3-8 in 1932-33 and it was Rs. 2-7 in January, 1934, and Rs. 2-5-10 in January, 1935. The average market price of Canton silk in India which was Rs. 9-12 per lb. in 1927-28 fell to Rs. 6-2 in 1930-31, Rs. 4-14 in 1931-32 and Rs. 4-8 in February, 1935. The fall in declared values and market prices of foreign silk have had serious repercussions in the demand and price of Indian raw silk especially since 1931-32 up to the present date. While the price of Canton silk in August, 1931, was Rs. 5-11 per lb. that of Indian silk of similar quality was Rs. 5-13 per lb. In November, 1931, Canton silk sold at Rs. 7 per pound while the Indian silk at Rs. 6-12. From December, 1931, to March, 1932, there were no transactions in Canton silk as disturbances in China prevented exports. Consequently the price of the Indian silk went up to Rs. 7-14 per lb. In March, 1932, the price of Canton silk ranged from Rs. 6-7 to Rs. 6-9 per lb. while that of Indian silk was Rs. 7-2 per lb. In March, 1933, the price of Canton silk went down to Rs. 4-12 per lb. and of Indian silk to Rs. 5-7 per lb. In February, 1934, the price of Canton silk was Rs. 3-8 per lb. and that of Indian silk was Rs. 3-7-6 per lb. In February, 1935, the price of Canton silk is about Rs. 4-8 while that of Indian silk is about Rs. 4-3. Though apparently there has been an increase in price of Canton silk in India yet the *Demand* for Indian silk has not increased due to the fact that imported spun silk which is cheaper than raw silk has been displacing raw silk markets.

Cost of Production of Indian Silk.

The cost of production of silk consists of cost of raw material, viz., silk cocoons and manufacturing charges. The Tariff Board have in paragraph 173 stated as follows: “On full consideration of all the relevant facts

we have decided to base our recommendations on a cocoon price of 5 annas a lb. This is rather above the level of present prices. But we recognise that if sericulture is to develop the rearer must be assured of a price for his cocoons sufficient to remunerate him for his labour." "We have noticed that at the present low level of prices both in Mysore and Bengal there has been a fall in the acreage of land under mulberry and this tendency can be checked only by raising the price of cocoons." "We believe that a price of 5 annas a lb. is high enough to do this, while it is not so high as to encourage extravagant hopes of a return of the boom prices." The cost of production of silk per lb. as noted in paragraph 175 of Tariff Board Report is as follows: 1st quality- Rs. 5-12-4, 2nd quality- Rs. 5-1-4, 3rd quality-Rs. 4-5-8. The fair selling prices of the above as given in paragraph 176 of the Report are Rs. 6-2-6 for 1st quality, Rs. 5-4-3 for 2nd quality, and Rs. 4-13-5 for 3rd quality.

The Tariff Board recognise that if the prices of cocoons go below 5 annas per lb. the sericultural industry will suffer, and have said that the industry has actually suffered due to prices lower than 5 annas per lb. so far back as March, 1933, when the cocoon price was As. 4-1 per lb. The price has since gone down to As. 3-4 in February, 1934. This fall in price is not due to reduction in cost of production of cocoons but is entirely due to the repercussions of the foreign competition. In other words, the cocoon producer has been forced to sell below costs. It may be added that the cost of production of cocoons remains the same as it was when the Tariff Board drew up their Report.

It is seen from the above that the fair selling prices of Indian silk should be what the Tariff Board propose if the industry has to exist. At a time when the landed ex-duty price of foreign silk was Rs. 3-12 per lb. the duty proposed by the Tariff Board was Rs. 2-6 per lb. to admit of securing fair selling price to Indian silks. At present the Tariff valuation of foreign silk has gone down to Rs. 3 per lb. It is therefore absolutely necessary to enhance the duty to Rs. 3-2 per lb. to admit of fair selling prices to Indian silk. The Tariff Board have in paragraph 207 stated as follows: "We have based our scheme of protection on the ex-duty prices of various qualities of silk set out in paragraph 183. If prices as represented by the ex-duty price of Rs. 3-11 per lb. of Canton steam filature silk fall below this level there is a risk of our measure of protection proving inadequate. It is therefore necessary for the Government of India to watch the course of prices in order that they may apply the relevant provisions of the recently passed "Safeguarding of Industries Act" should the circumstances demand it". As anticipated the ex-duty prices have actually gone down to Rs. 2-14 per lb. It is therefore necessary that the specific duty of Rs. 2-6 per lb. recommended by the Tariff Board should be raised by 11 annas per lb., i.e., to Rs. 3-1 per lb. The Government of India have sanctioned the levy of a specific duty of As. 14 per lb. in addition to the revenue duty of 25 per cent. Taking the case of Canton steam filature into consideration it is seen that this silk will pay a revenue duty of As. 12 per lb. plus a specific duty of As. 14 per lb., i.e., Rs. 1-10 in all. As against Rs. 2-6 per lb. proposed by the Tariff Board and Rs. 3-1 as required at the present juncture anticipated by the Tariff Board, there is an enormous difference of As. 12 and Rs. 1-7 per lb. respectively.

Duty on silk yarn and noils.

The Tariff Board have recommended a duty of Rs. 2-6 per lb. on these articles and they directly compete with raw silk as they can be used as substitutes for it and consequently constitute a menace to raw silk. Government of India have altogether overlooked any enhanced duties on the above articles. It is necessary that to protect raw silk the duties proposed by the Tariff Board should be imposed on the above articles. (I'ide paragraph 196 of the Report.)

Thrown silk and warps.

These articles are manufactured ones and directly compete against Indian raw silk. (*vide* paragraph 196 of Tariff Board Report.) The Tariff Board recommended a duty of Rs. 2-6 per lb. while the protection given authorises the levy of a duty of 25 per cent. *plus* As. 14 per lb. This duty is far lower than what the Tariff Board propose. It is necessary that at least the duty proposed by the Tariff Board should be levied.

Silk piecegoods, silk goods mixed with other articles.

There is a great disparity between the duties proposed by the Tariff Board on these articles and those sanctioned by the Government of India. It has already been pointed how the imports of all piecegoods and other articles are on the increase causing a great menace to sericultural industry in India as well as to handloom weaving industry. It is therefore necessary that the duties proposed on these articles by the Tariff Board should be given compensation for the subsequent fall in *ex-duty* prices of above articles (*vide* paragraphs 194, 195 and 197 of the Tariff Board Report).

Artificial Silk.

As observed in page 18 above, there has been tremendous increase in the imports of artificial silk from Japan during the past few years. Dealing with the question of artificial silk and its tendency to drive raw silk from the market, the Tariff Board have observed as follows:—

“197. We have dwelt on the competition which exist at present between natural silk and artificial silk yarn in Chapter X. At present the latter pays duty at the somewhat lower rate of 18½ per cent. We have noted the tendency on the part of weavers specially in Bombay to use it in increasing quantities as a substitute for natural silk. This tendency is encouraged alike by its extreme cheapness and by the comparatively low rate of duty imposed on it. We believe that if its price is left at its present low level it will drive out all other kinds of silk yarn and render our whole scheme of protection ineffective. At the same time we do not believe in putting up its price to the same level as that of natural silk as there is a well recognised difference of quality between the two. On a balance of these considerations we recommend that it should be subjected to a specific duty of Re. 1 per pound. This will still maintain a difference of at least one rupee per pound between it and the cheapest imported silk.”

Since the above observations were made by the Tariff Board, the position has become much worse inasmuch as the total imports of artificial silk during the 10 months from April to January of 1934-35 have increased by 50 per cent. as compared with the previous year and 250 per cent. as compared with 1926-27. The imports from Japan alone during 1934-35 have increased 6 times the figure for the previous year and 70 times those for 1931-32. It is therefore quite necessary that artificial silk should be subject to a duty of at least Re. 1 per pound as recommended by the Tariff Board though even this is quite inadequate under present conditions.

Economic Importance of the Industry.

The sericultural industry in India including handloom weaving industry provides occupation to about 2 million people. Silkworm rearing is of great economic importance to agriculturists in the provinces of India where it is being practised. About 10 lakhs of families were eking out a decent livelihood by employing themselves in the several branches of the silk industry. About 4 crores of rupees have been invested in the industry by the poor agriculturists. In rural economy sericulture plays a very important part.

The cultivation of mulberry and the rearing of silkworms afford a subsidiary occupation which enables the family of the agriculturist to turn its waste time to account and to earn a return which in many cases makes all the difference between a half-starved life without any hope of improvement, and a self-respecting competence. The capital invested in the business by each family is limited and the spare time of the raiyat is usefully employed. Persons who cannot participate in production on account of health, age or social customs can pursue the silk industry to considerable advantage. It is a matter of primary importance that in an agricultural country like India there should be as many subsidiary occupations as possible. Silkworm rearing and silk reeling come in handy as a suitable occupation specially as nature has provided portions of India with advantages in climate and economic environment for the successful practice of this industry. Due to the ruinous competition of foreign silks and fabrics the area under mulberry has gone down.

It was urged before the Tariff Board that protection should be afforded for 15 years as the people engaged in the industry are illiterate, poor and live in the interior villages and as it would take considerable time to introduce all the necessary improvements in the industry to enable the industry to withstand competition after the period of protection. Unfortunately the Tariff Board has recommended protection for five years only. This is absolutely insufficient. It is necessary to afford protection straight-away for ten years to enable the people and the Governments concerned to take definite steps to develop and organise the industry.

It is impossible to depict the suffering which the sericulturists in India are undergoing due to the abnormal foreign competition. The sericulturists are mostly poor and illiterate and cannot voice their feelings sufficiently loudly to secure the sympathy of the concerned authorities. The Government of Japan has been spending crores of rupees for the improvement of this stable industry. The Government of Japan has had to bear a loss of five crores of rupees recently to compensate the banks for the losses sustained in silk trade. The Chinese Government has been devoting attention to develop the industry scientifically and Italian experts have been engaged to organise the industry. The Italian Government has been paying bonuses to develop the industry. When such is the case the Government of India should sympathise with the dumb millions of sericulturists in India and afford effective and adequate protection to this poor man's industry for a sufficiently long period.

नवम्बर १९३६

Enclosure E.

Representation presented to the Hon'ble Sir Mahomed Zafrulla Khan, Railways and Commerce Member to the Government of India by Rajasabhabhushana Dikhan Bahadur K. R. Srinivasengar, M.A., on 28th July, 1936, at the Mysore Chamber of Commerce.

Sericulture is one of the important industries in India giving employment to some millions of people and bringing them an income of some crores of rupees. The industry is practised largely in the Indian States of Mysore, Kashmir and the British Provinces of Madras and Bengal.

Of the total quantity of raw silk consumed in India amounting to about 4 million pounds, nearly one-half—about 2 million pounds valued at about 1½ crores of rupees—used to be produced in the country itself (the Mysore State alone contributing about one million pounds) and the other half imported from foreign countries chiefly from China and of late also Japan. During the past decade this important industry is being threatened with extinction as Chinese and Japanese silk is, on account of various causes (such as depreciation of currency and bounties and other methods of state-help afforded to the industry in these countries), being dumped into India at prices amounting to about half the actual cost of production of similar

silk in our country making it impossible for the local product to successfully compete with the imported articles. The situation became so serious a few years back, that a representation was made to the Government of India by the Mysore Chamber of Commerce, at the instance of the Mysore Silk Association, in their letter No. 470-M. C. C., dated the 26th August, 1932, praying for adequate protection being granted to Indian silk against the foreign imported articles. The Government of India having referred the matter for investigation to the Tariff Board the Mysore Silk Association urged before the Board the pressing need for increased protection to the industry to save it from its threatened extinction and proposed that as against the then existing rates of duty varying from 18½ to 50 per cent. on various classes of silk, the duties might be raised to 100 to 125 per cent. The Tariff Board in the report submitted by them to Government after a detailed investigation into the condition of the industry, while recognising the urgent need for increased protection to the industry, recommended a duty of Rs. 2-6 or 50 per cent. *ad valorem* on raw silk—which was much less than what had been prayed for by the Mysore Silk Association. But even this modest recommendation of the Board was not accepted by the Government of India and in the Bill placed before the Legislative Assembly in January, 1934, they provided for a duty of only 14 annas per pound on raw silk, even though, during the period of 10 months that had elapsed since the Tariff Board Report was sent up, the position had become very much worse. While the Bill was before the Assembly, a representation was sent up by the Mysore Silk Association to the Government of India in its letter dated the 28th February, 1934, pointing out the inadequacy of the protection provided for in the Bill and urging the pressing need for a higher rate of duty. This representation had unfortunately no effect and the Bill as originally drafted by the Government was passed by the Assembly, although 9 members of the Select Committee on the Bill urged in their minutes of dissent the need for further raising the duty. In passing the Bill, the then Commerce Member, the Hon'ble Sir Joseph Bhore, was, however, pleased to give an assurance that if the duty failed to achieve the object that the Government had in view they would not fail to reconsider the position and he also asserted that Government would not feel justified in allowing the protection given to raw silk to be defeated by further serious lowering of prices.

A statement showing the rates of duty suggested by the Mysore Silk Association, the rates recommended by the Tariff Board and those sanctioned by the Government of India is herewith attached. A reference to the statement will show how the rates sanctioned by the Government of India have fallen far short of even those recommended by the Tariff Board which were themselves not adequate to meet the requirements of the case.

The trend of events subsequent to the passing of the Act having clearly shown that the duty imposed by the Act had failed to achieve the object as indicated by the very heavy increase in the imports of all classes of silk, a representation was made by the Mysore Silk Association to the Government of India in its letter dated the 3rd October, 1934, bringing to their notices that the contingency that the assurance given by him might be given effect to; and this was strongly backed up by the Chamber of Commerce in their letter to the Government of India, dated the 6th October, 1934. Copies of the abovementioned letter wherein full details are given in support of the representation are herewith attached for reference. It is a matter for great regret to us that this representation also did not receive due consideration at the hands of the Government of India. Since the representation was sent by us, the position has not improved. It has, if at all, gone worse.

I may be permitted to state here that Mysore is not alone in urging the need for the additional protection asked for by it. Our representation in this respect has been recently supported by the Chambers of Commerce in Madras and Calcutta, the Federation of Indian Chambers of Commerce and Industry and also by the Director of Industries, Bengal.

The Kashmir Government is also in full accord with us in pressing the need for increased protection.

In view of the fact that all the States and Provinces in India interested in the sericultural industry have felt the urgent need for increased protection being granted to this industry to save it from disaster, it is earnestly prayed that the Government of India may be pleased to give due consideration to the subject and take necessary action immediately to grant us the required relief.

It may be mentioned that the increased protection asked for is only for a limited period and that by the expiry of this period it is expected that material improvements will be effected in all stages of the industry to bring down the cost of production and enable us to cope with the foreign competition. The Government of Mysore have already sanctioned large grants for effecting improvements in the industry. The Madras Government also is said to have taken action in this respect from the grants placed at its disposal by the Government of India for the purpose.

Statement showing the rates of duty suggested by the Mysore Silk Association the rates recommended by the Tariff Board and those sanctioned by the Government of India.

Particulars of articles.	Duty originally asked for by the Association.	Duty recommended by the Tariff Board.	Duty sanctioned by the Government of India.
	Per cent.		
1. Raw Silk . . .	125	50 per cent. or Rs. 2-6 per lb. whichever is higher.	25 per cent. plus 14 annas per lb.
2. Silk yarns, noils and warps, silk thread and spun silk.	125	Ditto	25 per cent. plus 14 annas on silk yarns including thrown silk warps. 25 per cent. only on noils, spun silk and sewing thread.
3. Artificial silk yarn and thread.	125	Rs. 1 per lb.	25 per cent. or 3 annas per lb. whichever is higher.
4. Silk goods . . .	125	83 per cent.	Fabrics containing more than 90 per cent. of silk, including such fabrics embroidered with artificial silk— (a) Ponjee—50 per cent. plus Rs. 1 per lb. (b) Fuji Boseki and carded (excluding white card) 50 per cent. plus Rs. 1-8 per lb. (c) Other sorts 50 per cent. plus Rs. 2 per lb.

Statement showing the rates of duty suggested by the Mysore Silk Association the rates recommended by the Tariff Board and those sanctioned by the Government of India- contd.

Particulars of articles.	Duty originally asked for by the Association.	Duty recommended by the Tariff Board.	Duty sanctioned by the Government of India.
	Per cent.		
5. Silk mixtures	100	60 per cent.	Fabrics, not otherwise specified, containing more than 10 per cent. and not more than 90 per cent. silk :— (a) containing more than 50 per cent. of silk or artificial silk or both—50 per cent. plus Rs. 2 per lb. (b) containing not more than 50 per cent. of silk or artificial silk or both :— (i) containing more than 10 per cent. artificial silk—50 per cent. or Rs. 1.8 per lb. (ii) containing no artificial silk or not more than 10 per cent. artificial silk—50 per cent.
6. Artificial silk goods and mixtures.	100	83 per cent.	Artificial silk fabrics containing more than 10 per cent. artificial silk—50 per cent. <i>ad valorem</i> or 24 annas whichever is higher. Those containing not more than 10 per cent. artificial silk—50 per cent. only <i>ad valorem</i> .

Enclosure F. [Not printed.]

Enclosure G. [Not printed.]

Enclosure H.

Copy of letter from the Honorary President, Mysore Silk Association, Bangalore, to R. K. Nehru, Esq., I.C.S., Offg. Deputy Secretary to the Government of India, Department of Commerce, Simla, No. 79, dated the 19th July, 1937.

I beg to thank you for your letter No. 312-T. (6)/37, dated the 15th June, 1937 on the subject of the assistance required by the Indian Silk Industry against Japanese competition. I have endeavoured, as far as possible, to

give in the enclosed note detailed information on the points mentioned in your letter; but I feel that a categorical reply is altogether inadequate for a proper presentation of the situation. I trust therefore you will permit me to explain the case for the industry a little more at length.

2. At the outset, I would venture to point out that the Indian Silk Industry has not applied for assistance specially against Japanese competition but against foreign silk both from Japan and China. Until very recently, the price of Japanese silk was appreciably lower than that of Chinese silk, and there was equal need for protection against both countries. But since the commencement of the Trade Negotiations with Japan, the price of Japanese silk has gradually risen until to-day it is well above that of Chinese silk. There has been some increase in the latter but the proportion is considerably smaller. Thus, the wholesale Bombay price of Japanese silk which was Rs. 5 per lb. in July, 1935, is quoted to-day at Rs. 6-15, while the price of Chinese silk has only advanced from Rs. 4-13 to Rs. 5-8 per lb.

3. The specific duty of 14 annas levied since May, 1934, in addition to the *ad valorem* duty of 25 per cent., has not given substantial relief to the industry inasmuch as it has had no effect on the total imports. The quantity of raw silk imports still continue to be in the neighbourhood of two million lbs. The imports of silk piecegoods have, it is true, shown a decline; but it would be difficult to say whether the falling off is due to the increased duty or to some other cause. The imports for some years from 1932-33 were abnormally higher and on an unprecedented scale; and, though they have now fallen, they are still well above those prevailing in earlier years. It is natural to expect that the enormous quantities of art silk piecegoods coming into the country should have had their effect on real silk goods.

4. Raw silk has been largely imported into India from Japan since 1932-33. At the start, the price was somewhat higher than that of Chinese silk and the demand was slow. But it was soon brought down to a lower figure and immediately the demand was all for Japanese silk. Thereafter, the Japanese imports rose until in 1935-36, they were three times as large as those from China. In 1936-37, however, the imports from the two countries were about equal because of the rise in Japan prices; and, since the commencement of the Trade Negotiations, the quantity imported from Japan has fallen below that from China as, notwithstanding the comparative superiority of the Japanese silk, its price is much higher than that of Chinese silk and this is an important factor in determining the quantity of imports from each country.

5. If the need for protection were to be judged solely by the present prevailing price of Japanese silk, it may perhaps be said that there is no strong case now for assistance as against Japan as the fair selling price of Indian filature silk with a 200-basin filature has been determined by the Tariff Board at Rs. 6-10-9 per lb. (*vide* paragraph 181 on page 161 of the Tariff Board Report) and even with a filature of 100-basins it may not be more than about Rs. 7 per lb., which is about the present market price of Japanese filature silk. It is, however, a point for serious consideration how far the present rise in the price of Japanese silk is due to genuine trade conditions or to other causes. The stiffening of the prices of Japanese silk after your enquiry was announced, is very significant and leads one to strongly believe that the prices have been purposely manipulated by interested parties to combat for the time being, the case put forward by the silk industry in India for an increase of duty. In the circumstances and in view of the facts that it is most unlikely that Japan, having established a large market for raw silk in India, will yield it to China without an effort, and that the case for protection against Chinese silk remains almost unchanged, I venture to submit that it is not unfair to ask that for the purpose of your enquiry and for determining the duty to be levied on foreign silk, the prices prevailing since July, 1936, should

be left out of account. The average price for the 12 months preceding that date was about Rs. 5 per lb. and for the 12 months before that Rs. 4-2. If the need for assistance is determined on these prices, the industry has a clear case for further protection against Japan as much as against China, to the extent mentioned in the enclosed note submitted by the deputation of the Mysore Silk Association to the Government of India in September, 1936.

6. In conclusion, I beg to submit that our claim to protection is not based merely on recent inroads from Japan or on an appeal on behalf of a 'minor' or nascent industry. As the Tariff Board itself stated:—

"The problem which we have to investigate is not whether a new industry can come into being with the help of temporary protection but whether an old industry for which the country has been justly famous can by its help be saved from extinction, threatened by dumping or other devices to which various nations have resorted in an increasing measure in the present depression". (Paragraph 154 of the Tariff Board Report.)

No amount of competition from art silk or oven silk fabrics has diminished the consumption of raw silk in India which has steadily remained at about 4 million lbs. a year. Given adequate protection for a sufficient period, the Indian industry will be able not only to meet the whole of this demand but also replace imported silk piecegoods by those woven in the country.

(2) *Replies from the Mysore Silk Association, to the General Questionnaire issued by the Indian Tariff Board in regard to Silk Industry in India.*

Since protection was granted to Sericultural Industry there has been no increase in the area under mulberry cultivation, and the area under mulberry cultivation has fallen to 26,500 acres from 32,000 acres in 1933-34. This fall under mulberry area is due to the severe competition from Japan. The Government of Mysore have increased their assistance to the sericulturist considerably.

Out of a total of 19,000 villages in the State, the industry was being practised in 2,500 villages five years ago, and now it is practised in about 2,000 villages only.

The industry in its various stages gives occupation even now to about a lakh of families. Though accurate official statistics are not available the following estimates may be deemed to be more or less correct:—

	Families.
(1) Mulberry Cultivation and Silkworm Rearing	70,000 to 75,000
(2) Reeling	7,000
(3) Throwing, Weaving and Miscellaneous Occupations	20,000
Total	1,02,000

2. Sericulture is practised almost entirely as a subsidiary occupation to agriculture. Silk Industry comprises (i) Mulberry cultivation, (ii) Silkworm rearing, (iii) Silk reeling and (iv) Silk weaving and throwing and utilization of waste products.

Mulberry Cultivation.—Mulberry is grown in the State by agriculturists on pieces of land set apart for the purpose from out of their total holdings. A family grows about half an acre to three-fourths of an acre of mulberry. The capital for mulberry cultivation is obtained in the same way as for other agricultural requirements, and to a certain extent it is obtained from

the reeler to whom he sells his cocoons. Mulberry is both a rainfed and irrigated crop.

Silkworm Rearing.—Silkworm rearing is done by the grower of the mulberry himself employing family labour for rearing worms. In addition to his family labour he sometimes employs paid labour for cultivating mulberry, and for picking of leaves during the last stages of worms when consumption of leaves is considerable. The worms are reared in a portion of his dwelling house; no separate rearing house is constructed. The rearer generally obtains his financial assistance from the charka owner to whom he sells his cocoons.

Silk Reeling.—The silk reeling in Mysore is done mostly in charkas at present. Till now there was a State-owned filature which has been transferred to the Mysore Silk Filatures, Ltd., who are about to establish a filature of 200 basins in T. Narsipur. There are about 2,000 charkas spread all over the sericultural tracts in the State. Besides some sericulturists own their charkas to get their cocoons reeled. The reeling equipment of an average reeler consists of one to five charkas; and some reelers have even as many as 30 charkas. The reeler obtains his cocoons from the sericulturist directly and also through cocoon brokers who charge a commission of one to two annas per "Tooka" of 12 lbs. The charka reeler owns a small capital; and whenever he needs extra money, he obtains it from the "Dalals" or "Silk Kotis" who advance him this money on the security of the silk deposited with them. Generally about 8 to 10 per cent. of interest is charged on such advances. The silk is sold to the weaver or to larger consumers, the "Dalals" obtaining a commission of one and a half annas per lb. each from purchaser and seller.

Year.	Total area under mulberry (in acres.)	Production of Raw Silk (in lbs.)
3. 1933-34	32,870	7,88,880
1934-35	30,229	7,55,725
1935-36	28,528	7,41,728
1936-37	25,132	7,03,696
1937-38	26,500	7,95,000

The estimated actual production of raw silk for 1937-38 is about 7,95,000 lbs. If there were seasonal rainfall and all the harvests were successful and the demand for silk steady, the maximum attainable would be about 10,00,000 lbs. of raw silk under the present organization.

4. The cocoons reared in the Mysore State are mostly indigenous multivoltines which give a silk content of about 12·5 per cent. The production of cross-breeds has considerably increased during the past five years and the silk content of this varies between 13 and 14 per cent. Percentages as high as 14½ to 15 have also been attained. The Japanese and Chinese races give about one per cent. higher silk than the Mysore race.

5. The sericulturists in Mysore rear mostly the indigenous multivoltine worm which yields silk of great natural qualities. But the demand for hybrids has rapidly increased and the Department of Sericulture has considerably augmented the supply of hybrid disease-free layings during recent years. About 25 per cent. of the total production of cocoons in the State now is estimated to be from the cross-breeds. Cross-breeds yield a larger quantity of silk per unit of cocoons, and the worm consumes less quantity of mulberry leaf and has a shorter rearing period. It is economically superior to Mysore race. The hybrid seeds are manufactured by the Government Grainages and by Aided Grainages under the control of the Department of Sericulture. These hybrids are made between Mysore female and the Japanese and Chinese univoltines and bivoltines. The seed supply of foreign races is replenished from time to time from foreign countries.

6. The sericulturists in Mysore rear worms in their dwelling houses. No separate rearing houses are constructed. The insanitary conditions have to some extent been removed in some places and better ventilation arrangements have been made by ryets. The appliances necessary for equipping a rearing house are:

Stands, Trays, Chandrikes, Bamboo Baskets, Gunny Bags, Hessian Cloth, Lanterns, Chopping Knives, etc.

All the above are obtained locally. The stands are made of wooden supports with bamboo cross-bars, each stand holding 10 to 12 trays of silkworms. The trays and chandrikes are made of bamboo. The rearer obtains chandrikes on hire also when his stock is inadequate for the purpose. The cost of equipping a rearing house for rearing two ounces of seed at a time ranges between Rs. 40 and Rs. 50 according to localities. The life of the stand varies between 5 and 10 years, that of chandrikes between 3 and 5 years, and of the trays 2 and 3 years.

There has been no appreciable reduction on these charges since the last Tariff Board enquiry.

7. The sericulturists in Mysore rear the Mysore indigenous silkworms and cross-breeds between Mysore and Japanese and Chinese univoltines and bivoltines. Normally, the rearing period of the Mysore race of worms is 30 days whereas the rearing period of the cross-breeds varies between 26 and 27 days according to the hybrid. The last stage of the larvæ in the case of Mysore worms is about 8 to 10 days whereas in the cross-breeds it varies between 5 and 7 days according to seasons. The cross-breeds consume less quantity of leaves and yield a higher percentage of silk. The number of cocoons per pound of Mysore race varies between 500 and 600 according to season, and those of cross-breeds vary between 375 and 475. The length of filament in Mysore race is about 450 yards; in the cross-breeds it varies from 600 to 750 yards.

8. The general method of rearing silkworms continues to be the same but some important improvements have been effected in the details of the rearing. The silkworms are better fed having regard to the appetite and the development, which is conducive to better yield of cocoons. The spacing of silkworm beds is generally more liberal now and the beds are cleaned by using paddy husk. The mounting of the worms on the chandrikes is done more evenly and thinly avoiding thereby formation of deformed and ill-built cocoons. In some places the harvesting of the cocoons also has been done on the 4th day instead of on the second day of mounting.

9. The Mysore sericulturist was formerly rearing mostly the indigenous Mysore silkworms. The use of the hybrids between the Mysore and Japanese and Chinese races has increased considerably since the last Tariff Board enquiry. The production of seed is organised separately from the production of reeling cocoons. The seed production in the State may be classified under the following headings:

- (a) Seed Cocoon Production;
- (b) Chawki Rearing;
- (c) Production of Examined Seed.

(a) *Seed Cocoon Production.*—There are certain well-marked tracts in the State which have long enjoyed a reputation for producing the good seed cocoons. The holdings here are smaller, and greater attention is paid to rearings, soil and other climatic conditions being also favourable. There are two such areas, viz., Bidadi and Kunigal; and these have been brought almost entirely under the control of the Sericultural Department who issue tested seed of Mysore race free of cost to selected Seed Rearers who have developed a special technique under the guidance of the Department for producing seed cocoons. The officers of the Department guide and inspect constantly the rearings. Cocoons found unfit for seed are prevented from being sold as seed cocoons. This system of control has ensured the supply

of high grade seed cocoons, and it is practically certain now that in these areas there is no pebrine. This beneficial measure has reduced the losses of rearings from pebrine in the State to a minimum.

(b) *Chawki Rearing*.—In certain areas there is a special class of rearers of worms who procure seed cocoons generally from the seed producing centres or purchase examined seed from the Government or Aided Grainages and rear silkworms till the end of the first moult. This is called "Chawki". The Chawki is sold to the sericulturist who rears the worms for reeling purposes; the young worms need great care till the end of the first moult which the ordinary sericulturist does not bestow, and as the Chawki rearers pay great attention to the rearing at this stage the crops obtained from the "Chawki" are more successful.

(c) *Production of Examined Seed*.—By far the most important source of supply of seed is the supply by the Government and Aided Grainages which prepare cellular disease-free layings and supply to the ryots. The total demand in the State for disease-free layings is about 3 crores of layings; and at present about one crore of disease-free layings are being supplied and the supply is being steadily increased year after year. The Aided Grainages receive a subsidy of Rs. 5 per 1,000 disease-free layings from Government.

The cost of production of one ounce of disease-free layings in the grainages is noted below for 1936-37:

	Mysore and Cross-breed combined per oza.	Sale price of Mysore lay- ings per oza.	Sale price of Cross-breed per oza.
	Rs. A. P.	As. P.	Rs. A. P.
Government Grainages	1 14 9	11 2	1 6 5
Aided Grainages	1 6 5	11 2	1 6 5

The cost of production in Government Grainages is higher than that in the Aided Grainages as Government Grainages employ better paid labour and are worked on more sanitary and scientific lines.

The Sericultural Co-operative Societies prepare disease-free layings for the use of their members, the surplus after meeting the requirements of the members being sold to their neighbours.

The production of disease-free layings is organised on the most up-to-date lines obtainable in Japan and Italy.

10. The Government of Mysore have as yet not passed any legislation as the one obtaining in Japan. The supply of controlled seed has been increased by the several methods enumerated in answer to Question 9. A draft bill for controlling seed supply and penalising the use of unexamined seed was prepared by the Board of Sericulture and referred to the Mysore Silk Association. As there has been some amount of opposition to the bill on the part of the sericulturists, the Association has been trying to get over the opposition by educating them about the benefits that would accrue to the industry by a measure that would penalise the use of unexamined seed.

11. The indigenous silkworms are multivoltines and 6 to 7 crops are raised ordinarily in a year. The hybrids between the Mysore worm and the Chinese and Japanese worms are also multivoltine and 6 to 7 crops a year are raised from these. The rearing of foreign worms is confined to Government Farms and to some selected Seed Cocoon Rearers of foreign race.

An ounce of Mysore silkworm seed gives about 40,000 worms. The quantity of seed required per acre of rainfed garden is about 6.5 ounces per year and the quantity of seed required for irrigated garden is about ten ounces. The total quantity of seed required for the State is about three crores of disease-free layings.

12. The foreign races of worms are univoltine and bivoltine. Some of the races have been reared in the Government Farms for more than 15 years; and seed cocoons are being obtained from these races for preparing hybrids between them and the Mysore race. Some of the selected seed rearers also rear these worms for increasing the supply of foreign race seed cocoons to meet the increased demand for preparing the cross-breeds. The foreign race worms are difficult to rear and as such they cannot be reared by the ordinary sericulturist. They are easily susceptible to diseases. It is also a fact that these races do not give as much cocoons per unit of seed as cross-breeds from the Mysore races in Mysore. The selected seed rearers of foreign race worms are assured compensation by Government for the low yield they obtain from the foreign race worms.

13. The seed cocoons are produced in selected areas, viz., Kunigal and Bidadi. The selected cocoon rearers are supplied disease-free layings free of cost by the Department of Sericulture, their rearings supervised, guidance given, rearing houses disinfected and seed cocoons unfit for seed are not allowed for propagation purposes. This system of control and close supervision has practically eliminated pebrine from these areas and the losses accruing from pebrine have been considerably reduced in reeling cocoon producing areas.

The system of seed production has been detailed in reply to Question 9.

14. The silkworm rearer, before the organization of the controlled seed supply, used to lose two crops out of every five, but now on account of the control exercised over the seed cocoon producing centres and also due to the increased supply of disease-free layings, losses from pebrine have been practically eliminated. The loss from flacherie which is a disease due to improper rearing, bad supply of leaves, and climatic conditions has also been lessened appreciably due to better rearing of worms.

15. Silkworms in Mysore are fed on mulberry leaf. The initial and recurring expenditure per acre under mulberry cultivation is given below. The initial and recurring expenditures vary according to locality and system of plantation. From information gathered from representative ryots, the approximate averages over the several kinds of gardens do not appear to have changed since the last Tariff Board enquiry, as the measures to reduce the cost of production of mulberry leaf take a very long time to become fruitful. It has been found that the figures for the costs of cultivation have practically remained as on the previous occasion and they are noted below:

Kind of land.	Initial expenditure.	Annual expenditure.	Yield of leaf per acre per annum (lbs.)	Cost of produc- tion of leaf per lb.
	Rs.	Rs.		Rs.
Dry land . . .	75	42	3,000	2.7
		to	to	to
		60	5,000	2.3
Tank irrigated . .	105	80	7,000	2.2
Deep-well irrigated	160	142	10,000	2.5
Shallow well irri- gated . . .	100	130	10,000	2.7

The quantity of leaves required to feed Mysore silkworms from an ounce of seed is about 800 lbs. The expenditure for it (i.e., on mulberry leaf alone) comes to Rs. 11-4; and the yield of cocoons therefrom is about 4 "Tookas" of 12 lbs. each.

16. (a) The Mysore Silk Association in the note submitted by it to Government on the reorganization of the silk industry in Mysore had detailed measures to be adopted by the Government for reducing the cost of mulberry. The Government of Mysore have generally approved of the adoption of those measures and sanctioned increasing grants from year to year to the Department of Sericulture. The most important of all the

measures is the introduction of tree mulberry which reduces the cost of production of cocoons to a considerable extent. The Department of Sericulture has increased the supply of saplings to intending planters. A bonus of four annas per plant to be distributed over certain number of years has also been sanctioned. As the rearing of mulberry gardens from seedling plantations has given appreciably large quantity of leaf from a unit area as also a better quality of mulberry leaf, Government have sanctioned the formation of nurseries in important Government Farms with a view to raise seedlings and to distribute them after the seedling has attained a certain growth. The Silk Farms have been advocating and demonstrating the use of artificial and other manures which give increased yield per acre of land. By the very nature of things, these steps take a long time to fructify.

(b) The indigenous mulberry hush produces annually 6 to 7 crops from irrigated gardens and 4 to 5 crops of leaves from dry lands. The "bush" cultivation is intensive and production of leaf per unit area is considerably more than in the case of the tree. It yields a very rapid return after planting, and also the interval between crop and crop is shorter than in the case of the tree mulberry.

The cost of production of mulberry leaf from "bush" cultivation is understood to be about two times as that from "tree" mulberry. The mulberry leaf from tree cannot be harvested as easily as the leaf from the "bush" system. "Bush" cannot altogether be dispensed with as leaf from "bush" is necessary for rearing worms from the first to the fourth stage. Tree mulberry leaf comes in handy for the worms in the fifth stage. One is the complement of the other under altered conditions. Tree mulberry is planted generally at a distance of 12 to 15 feet—the space between two trees can be utilised for the raising of any other common crop. The system has therefore the advantage that the same land can be used not only for producing mulberry leaf but also for the production of other usual crops.

17. In Mysore, the practice of the sericulturist is generally to have his mulberry garden for his own use and not to raise mulberry leaves for sale. The cost of mulberry leaf to the rearer is the cost of production of the mulberry leaf. The profits of cultivating mulberry alone without rearing silkworms cannot be assessed as silkworm rearing and mulberry cultivation go hand in hand and there is no separate market for mulberry leaves.

18. The statement given below indicates the index numbers of wholesale prices for selected commodities from 1933 to 1938:

(Price in 1914=100.)

Year.	Rice.	Ragi.	Javari.	Groundnut.	Raw Silk.
1926 . .	150	188	140	181	117
1933 . .	76	73	75	80	53
1934 . .	74	88	87	83	48
1935 . .	85	135	105	124	52
1936 . .	84	115	89	109	49
1937 . .	83	93	79	115	63
1938 January .	84	100	80	92	60
1938 March .	84	96	82	87	56
<hr/>					
Percentage of fall					
1926-1938 .	44%	49%	41%	52%	52.1%

The percentage of fall in respect of raw silk has been more than in the case of other commodities.

19. (i) The Government of Mysore have maintained Central Silk Farms and Grainages all over the State which are utilised for preparing disease-free layings and to serve as centres from which all improvements are

communicated to the sericulturist who is guided in his work of improving the silkworm rearing by the various methods which are from time to time indicated by the Farms.

(ii) Some of the ryots, as a result of the propaganda carried on by the Department have taken appreciably to the use of groundnut oil cake and other manures.

(iii) The introduction of tree plantations and seedling plantations has been encouraged.

20. The Government of Mysore have been giving particular attention to the improvement of the condition of the industry in the State by adopting the measures recommended by the last Tariff Board in almost all the branches and these have been indicated in the Memoranda submitted by the Association.

21. The yield of cocoons from univoltine worms in India is lower than in their home countries. The Mysore and the cross-breed multivoltines give about 50 and 75 lbs. of cocoons respectively per ounce of seed whereas the Japanese and Chinese univoltines give between 25 to 30 lbs. of cocoons. There seems to have been no change in the average yield from the imported seed. Since the last Tariff Board, the production of cross-breed layings has increased from about 6 lakhs in 1932-33 to about 75 lakhs of layings during 1937-38. The seed campaign work in Bidadi and Kunigal has been strengthened and as already stated it has minimised the incidence of pehrine in the State.

22. Univoltine cocoons contain more silk. The Department of Sericulture conducted experiments about the production of hybrids and have successfully introduced the system of rearing those hybrids and the demand for the hybrids has increased rapidly due to the economic advantage of rearing cross-breeds. In fact, as already stated, the production of disease-free layings has gone up to 75 lakhs during 1937-38.

23. As the sericulturists are illiterate, they have not maintained accounts and therefore accurate figures cannot be obtained. The figures for the year 1937-38 in respect of cost of rearing silkworms from one ounce of seed are given below:

	Rs. A. P.
Cost of seed	0 11 2
Cost of extra labour for picking leaves	2 0 0
Cost of leaves	11 4 0
Cost of appliances	1 0 0
Other expenses	0 8 0
Total	15 7 2
	or
	15 7 0

The cost of producing one pound of cocoon works out to about As. 4-11 and the figures given above pertain to rainfed garden which form the bulk of the area in the State. The approximate figures for rearing Mysore worms from the leaf from one acre of rainfed garden are given below:

	Rs. A.
(1) Cost of seed	5 4
(2) Cost of extra labour for picking leaves	15 0
(3) Cost of leaves	85 0
(4) Cost of appliances	7 0
(5) Other expenses	2 8
Total	114 12

The figures given above relate to rainfed gardens producing 6,000 lbs. of leaves and requiring about 8 ounces. The total yield of cocoons is about 375 lbs. on the assumption that all the crops are successful and the cost of production of cocoons works to Rs. 114-12 or about As. 4-11 per lb.

24. Rate per pound of cocoons used for reeling in Channapatna area for the several years is given below:

Year.	Maximum.	Minimum.
	Ra. a. p.	Ra. a. p.
1933	0 5 0 (January) . . .	0 3 0 (December.)
1934	0 4 3 (October and November.)	0 3 0 (January, February and August.)
1935	0 4 6 (July) . . .	0 3 2 (January.)
1936	0 4 4 (December) . . .	0 3 0
1937	0 5 8 (February and March.)	0 3 6 (June.)
1938	0 4 4 (January to April)	0 3 10 (May.)

The detailed price per pound of cocoons is given in the Memorandum submitted by the Association.

25. The sericulturist generally sells his cocoons to the reeler either directly or through a broker. Some rearers sometimes get their cocoons reeled in their homes. As the moths cut out in about ten days after spinning of the cocoons and as in Mysore the practice of conditioning has not come into vogue, the rearer sells his cocoons irrespective of the state of the market. The average prices obtained by the rearer for the past five years are given below:

	As. p.
	Per lb.
1933	3 0
1934	3 4-95
1935	3 8-5
1936	3 4
1937	4 6
1938	4 1-0

The yield of silk and of waste depends upon the quality of silk produced. From a 100 lbs. of cocoons the average production of silk is about 7½ lbs. and of silk waste is about 3½ lbs.

26. There are at present only two filatures in the Mysore State—one a small filature of about 34 basins in the Mysore City; and the other Silk Filature at Bangalore which is about to be transferred to Kollegal for a Company which has been floated there. A Company has been just floated in Mysore for the establishment of a large filature. The total estimated production of raw silk in the State is about 795,000 lbs. at present, of which the filature reeled silk is only about 10,000 lbs.

27. The quantity of raw silk and silk waste produced together with their respective values during the past five years are given below.

Year.	Production of Raw Silk.		Production of Silk Waste.	
	Quantity.	Value.	Quantity.	Value.
	lbs.	Rs.	lbs.	Rs.
1933-34 .	788,800	31,55,200	394,400	43,130
1934-35 .	755,700	30,22,800	377,800	23,250
1935-36 .	741,700	29,66,800	370,800	52,200
1936-37 .	703,800	28,14,400	351,300	55,670
1937-38 .	795,000	...	397,500	...
	(approximate)		(approximate)	

The quantity of cocoons required to produce one pound of silk varies from 13 to 15 pounds according to the quality of silk reeled in Charkas. In the filature, it is understood that a renditta of about 16 to 20 is obtained.

28. The initial cost of country Charka varies between 10 and 15 Rupees. The yield of silk per day varies according to the quality of silk produced. It varies from 1½ to 2 lbs. On an average the production of 1½ lbs. may be reckoned per Charka per day. The life of a Charka is about 4 to 5 years.

29. The cost of production per pound of Charka silk during 1937-38 is given below:

	Rs. A. P.
(1) Cocoons, 26 lbs. at As. 4-9 per lb. . . .	7 11 6
(2) Labour: Reeler As. 8 and Turner As. 4 . .	0 12 0
(3) Fuel	0 8 0
(4) Water	0 8 0
(5) Selling expenses	0 3 0
(6) Transport of cocoons and brokerages . .	0 3 0
(7) Contingencies	0 2 0
(8) Supervision and management	self
Total cost of 2 lbs. of silk	9 10 6
Deduct cost of 1 lb. of waste	0 5 6
Total	9 5 0

Therefore the cost of 1 lb. of silk = Rs. 4 10 6

Renditta—13: 1.

The figures given above relate to producing second quality Charka silk. The cost of producing first quality silk will be about Rupee one more per pound as the renditta is higher in the case of first quality silk and as the production charges are also more.

30. It is understood that the Indian filatures do not suffer by comparison with their competitors in respect of the items referred to in Question 29.

31. The Mysore Silk Filatures, Ltd., have after careful study decided to start a filature of 200 basins as they considered it to be an economical unit.

83. The figures are noted below :

	No. of families.	
	1933-34.	1936-37.
(1) Mulberry cultivation and Silkworm Rearing	100,000	75,000
(2) No. of families indirectly benefited such as agricultural operations, silkworm reeling and supply of appliances, etc.	10,000	7,000
(3) Throwing, re-reeling, weaving and connected operations and other miscellaneous works	25,000	20,000
Total	135,000	102,000

35. (1), (a) The Charka reeler gets a daily wage of 6 to 7 annas.

(c) The wages paid to reelers in filatures are 8 annas per head per day.

(2) The Indian labour compares very favourably with Chinese labour, and given an opportunity and training Indian labour will not be inferior to others.

(3) The Government Silk Farms are fully equipped to train sons of rearers in mulberry cultivation and improved methods of rearing silkworms. Candidates for Aided Grainages are also trained in the Central Grainages which are equipped on the most scientific lines. Reelers, till very recently, used to be trained in the Government Silk Filature at Mysore. Besides, the propaganda staff of the Sericultural Department tour the villages, instruct and demonstrate improved methods of rearing and also impart any other knowledge that is necessary to the ryot to improve his cultivation and rearing.

40. There are a number of Silk Throwing Factories in Bangalore, and there is one Silk Throwing Factory in Doddaballapur and one in Mamballi in Mysore District, which throw silk for local use and also for export to consuming centres in India. न्यायमय नयन

41.

	Local Filature Silk.				Imported Filature Silk.				Charka Silk first quality Hand Twisted.	
	Machine twisted.		Hand twisted.		Machine twisted.		Hand twisted.		Organ-zine.	Tram.
	Organ-zine.	Tram.	Organ-zine.	Tram.	Organ-zine.	Tram.	Organ-zine.	Tram.		
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
1. Price of raw silk 1 lb.	6 0 0	6 0 0	6 0 0	6 0 0	5 12 0	5 12 0	5 12 0	5 12 0	5 0 0	5 0 0
2. Twisting and winding	1 8 0	0 6 0	1 12 0	0 8 0	1 8 0	0 6 0	1 12 0	0 8 0	1 12 0	0 8 0
3. "Boil-off" charges	0 4 0	0 4 0	0 4 0	0 4 0	0 4 0	0 4 0	0 4 0	0 4 0	0 4 0	0 4 0
Total	7 12 0	6 10 0	8 0 0	5 12 0	7 8 0	6 6 0	7 12 0	6 8 0	7 0 0	5 12 0
Price per lb.	10 5 4	8 13 4	9 12 10	8 0 10	10 0 0	8 8 0	10 5 4	8 10 8	9 12 10	8 0 10

N.B.—In filature silks the loss in winding is 1 tola per lb, whereas in Charka silk the loss is 1½ tolas. The loss in degumming in Charka silk is 11 tolas per lb, but in filature silk it is only 9 tolas.

49. The improvements that can be effected in Charka silk are limited by the very nature of reeling method. The most common defects in Charka silk are: (1) want of uniformity, (2) want of cohesion, (3) broken ends, (4) presence of a large number of 'major' and 'minor' defects.

To remedy these defects, it is necessary to reel the silk in filatures. But in Mysore on account of the decreasing demand for inferior grade Charka silk, the quantity of first grade Charka silk has been increased and attempts have been made to make the silk more uniform by paying greater attention in reeling.

In Mysore the Charka silk is not re-reeled in the reeling establishments. This work is generally done by the weaver himself or in some throwing factories. In Japan re-reeling is done in the filatures as the reels used are not of standard size and the skeins have to be made into standard ones, and therefore re-reeling is carried on in the filature establishments there. Besides in Japan there is a lot of gum on account of the humid climate which needs removal. In Mysore, however, before the silk is used for weaving, it is re-reeled and twisted. In the case of imported silk re-reeling is necessary in the throwing factories before it can be used by the weaver.

45. The re-reeling of Charka silk in Mysore costs about 4 to 5 annas per pound and there is generally a wastage of about $1\frac{1}{2}$ tolas per pound.

44. All the Charka silk is re-reeled in Mysore before it is put on the loom. It is a process combined with weaving.

45. Mysore Charka silk is used in the manufacture of silk fabrics, gold thread, 'nakki', 'gotba', 'dhanak', 'kinari', etc.

46. The Mysore Charka silk is consumed locally and is also exported to other Provinces in India. Before the competition from foreign countries started, the demand for Mysore Charka silk was great. But on account of the cheapness of imported silk, demand for Charka silk has decreased. The production of superior grade Charka silk has increased in the State. The handloom weaver uses Mysore charka silk mostly for "Weft" as it is found to be more durable. It has a better lustre, feel and tenacity than the imported silk.

(2) The total quantity of raw silk produced in the Mysore State during 1937-38 is estimated to be about—795,000 lbs.

47. The total quantity of raw silk and waste produced during the last 5 years and the quantities used locally and the quantities sold for use in other parts of India and for export are given in the table noted below. It may be added that Mysore silk was not exported to foreign countries. The silk waste produced in Mysore State was being exported to foreign countries till 1936-37, when the exports fell down as the local spun silk mills was started in that year.

The chief market in the State for Mysore silk is Bangalore where there are a number of silk 'Kotis'. The reeler or the local broker markets his silk through these 'Kotis' and the silk 'Koti' generally advances him an amount varying between 50 and 70 per cent. of the total value of raw silk deposited with the 'Koti' and effects the sale of the silk on receipt of orders from his clientele either in Mysore State or from outside consuming centres, viz., Salem, Conjeevaram, Hubli, Gadag, Dharwar, Dharmavaram, and Hyderabad. The 'Koti' owner charges a commission of one and a half annas per lb. of silk sold. Large consumers sometimes employ their brokers for obtaining silk for their consumption. The broker gets a commission of 2 to 4 annas per lb. which is called "Gootum". The silk is generally consigned in bales of 105 to 108 seers.

Year.	Production of Raw Silk.	Production of Silk Waste.	Export of Raw Silk.	Export of Silk Waste.	Imports of	
					Raw Silk.	Twisted Silk.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1933-34 . .	788,800	394,400	430,212	87,634	189,586	60,480
1934-35 . .	755,700	377,800	461,952	209,403	230,482	96,027
1935-36 . .	741,700	370,800	541,851	412,745	293,595	123,099
1936-37 . .	703,600	351,300	532,506	303,963	379,913	69,202
1937-38 . .	795,000	397,500	406,162*	139,063*	422,455*	36,864*

48. There have been no exports of Mysore silk to foreign countries. A conditioning house would be useful if transactions in silk are conducted on the basis of 'conditioned weight'. The conditioning house would not be very useful at present as the local Charka silk does not admit of quality tests as practised in international testing houses. It would facilitate silk marketing if a testing house is established after sufficient production of filature silk in Mysore is started. The need for conditioning house with the testing branch was recognised long ago, and an institution of the above type would certainly stimulate trade in filature reeled silks.

49. The chief silk markets for Mysore silk are Salem, Kumbakonam, Trichinopoly, Conjeevaram, Gadag, Hubli, Belgaum, Dharmavaram, Dharwar and Hyderabad. At present there is practically very little trade with Northern Indian markets. Foreign silks are generally imported into Bombay, Madras and Tuticorin. The distances and freights are noted below:

	Distances in miles.	Freight per 75 lbs.
		Rs. A. P.
1. Bangalore to Gadag	299	3 3 0
2. „ Hubli	292	3 3 3
3. „ Belgaum	380	3 15 0
4. „ Bagalkote	356	3 15 0
5. „ Conjeevaram	197	2 8 0
6. „ Salem	164	2 2 0
7. Bombay to Gadag	490	4 13 0
8. „ Hubli	453	4 10 0
9. „ Belgaum	365	4 6 0
10. „ Bagalkote	408	4 3 0
11. Tuticorin to Salem	320	3 5 0
12. „ Conjeevaram	205	1 12 0

50. The sale price of Mysore silk in markets outside Mysore cannot be compared with prices of silk in Bangalore market as the silk that is exported from Bangalore is got re-reeled and twisted in outside weaving centres, where they are sold and the charges of these operations are added to the original prices of silk. Taking off these charges, there is no appreciable difference between the net prices in the several places.

* (Up to end of December 1937.)

51. The Charka silk which forms the bulk of the silk produced in the State does not admit of scientific grading. The silk merchants determine the quality of silk by visual inspection for uniformity, cleanness, lustre, broken ends, nervo, etc. The filature silks admit of examination by instruments. Charka silk admits of improvement and it can be graded when reeling is improved. The Mysore Silk Association is working towards the establishment of a Central Conditioning House for this purpose. The progress is greatly hampered by the present critical condition of the industry.

52. The prices as published by the Chamber of Commerce and the Mysore Silk Association and those paid to reelers as ascertained by actual enquiry show no marked variations between them, though there might be slight differences in respect of individual transactions. The Mysore Silk Association has maintained a separate agency to collect correct figures regarding the market rates for silk, etc., and these are published in its fortnightly reports, a set of copies of which has already been submitted to the Tariff Board.

53. The foreign silks in Bangalore are obtained from importers in Bombay and Madras. The quantities of foreign raw silk imported into Mysore State are given below:

	Lbs.
1933-34	189,586
1934-35	230,482
1935-36	293,595
1936-37	379,913
1937-38	501,861

The following table gives the prices of Canton and Japanese silks at Bombay and of Mysore Charka silk in Bangalore markets:

Year.	Canton.	Japan.		Mysore Charka first quality.
		White.	Yellow.	
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
1933	2 5 4 to 4 14 11	..	..	3 15 0 to 6 0 0
1934	3 6 5 to 4 6 0	..	..	3 12 0 to 4 14 0
1935	4 6 6 to 5 12 6	4 0 0 to 5 12 0	3 14 0 to 5 10 0	4 0 0 to 5 14 0
1936	4 12 0 to 5 11 6	4 14 0 to 6 15 0	4 13 0 to 6 3 0	3 15 0 to 6 0 0
1937	4 12 0 to 5 11 0	5 8 0 to 6 14 6	5 8 0 to 6 13 6	4 11 0 to 6 6 0
1938	4 1 6 to 4 14 6	5 6 6 to 5 13 0	5 4 0 to 5 11 0	4 5 0 to 5 10 0

54. Foreign imported silks classified as "all other sorts", and "Japanese Filatures" compete with Indian filature reeled silks, and displace Charka silk of first quality. Silks classified as "all other sorts", "Japanese Filatures", and "hand-reeled", compete with the first and second quality Indian Charka silk. "Doupion" silk and first quality hand-reeled silk compete with Charka silk of second and third quality.

The above silks are used by the handloom weavers but the tendency is to use in increasing quantities Japanese filature reeled silks.

55. Artificial silk and staple fibre lower the price of natural silk, and certain qualities of raw silk are displaced by them.

56. At the time of the last Tariff Board enquiry, the competition was mostly from China. For the past 5 years, the competition is mostly from Japan. The competition now is more severe as Japan is better organised than China and can subsidise its industries to a larger extent than China could afford to. There is no doubt that Japanese silks have been dumped into India with a view to capture the entire Indian market, kill its indigenous industry and rule supreme in Indian silk markets. The imports of Japanese silks were as low as 33,000 lbs. in 1931-32; in 1934-35 they rose to the appreciable figure of 8,96,544 lbs. and in 1935-36 the imports increased to 16,25,300 lbs. and in 1937-38 they stood at 14,05,439 lbs. Chinese imports of raw silk into India stood at a very high figure of 2,929,758 lbs. in 1932-33. In 1935-36, the imports got reduced to 490,693 lbs. and in 1937-38 the imports were 928,738 lbs. The market for Chinese silk in India has contracted due to the formidable rivalry of Japanese silks. The competition from China, though it has decreased considerably, is still not negligible.

Japan has sold its silks in India at costs very much lower than the cost of production in that country. For instance, the cost of production of Japanese silks was as high as 1,300 Yen in 1929-30 (Rs. 135=100 Yen) per bale of 133 lbs., i.e., about Rs. 13 per lb. When the depression in silk industry started, the Government of Japan stored an enormous quantity, viz., 112,000 bales of silk to stabilize silk prices, and assured the financing banks that the Government would indemnify losses to the extent of 30 million Yen on the transactions of the above stored silk. Later on the Government found that this measure did not materially help the stabilization movement. Subsequently, the Japanese Government contracted to sell about 108,000 bales of this stock of silk to a big exporting firm of Japan. The ruling prices then were round about 500 Yen per bale (1931-32). The American purchasers protested against the release of the banded silk as it would upset the usual markets. Therefore, the Government bought the stored silk and this silk was released to be sold in Indian markets and in certain other Asiatic countries. In 1935, the banded silk was exported to British India at the very cheap rate of 406 Yen (exchange value 100 Yen=Rs. 77), i.e., at a rate of about Rs. 2-0 per lb. It has already been mentioned that the cost of production of this silk was about Rs. 13 per lb. Therefore, the silk that is sold in India has been sold below cost of production.

A comparison of the market rates for Japanese silks in India and in other countries such as America, Europe and Australia indicates that the Japanese silk was put in Indian markets at rates far below those obtaining in other countries. The average price for the year 1935 of Japanese silks in other countries of the world was 700 Yen per bale while it was only 400 Yen per bale for the silk sent to India. This enormous disparity between the rates of Japanese silk in India and in other important countries of the world cannot but be ascribed to the great desire on the part of the Japanese to capture Indian silk markets with a view to ultimately kill the indigenous industry.

The imports of these low-priced Japanese silks reduced the prices of Indian silk affecting the industry to not a little extent. There was a rise of prices in Yokohama to 925 Yen per bale of silk in November, 1936. From January, 1937, to November, 1937, the prices in Indian market ranged between 700 and 750 Yen per bale. On account of the rise in the spot

prices in Yokohama the prices for Japanese silks in India were also put up. There was, therefore, a temporary and spectacular rise of price of silk in India.

A study of the spot prices in Yokohama market for Japanese silk, and the prices of Japanese silk in Bombay market discloses the fact that Japanese silks have been dumped at prices below costs of production. Take, for instance, January, 1936, when the spot prices at Yokohama was Rs. 4-9-6. The market prices for Japanese silk in Bombay was round about Rs. 5 per lb. If we add to the spot prices of silk in Yokohama, the freight, insurance and carriage charges, and also duty, the price would amount to:

Rs. A. P.
4 9 6
0 6 0 freight, insurance and carriage duty.
2 0 4
<hr/>
5 15 10
<hr/>

or Rs. 6 per lb. whereas Japanese silks have sold in Bombay markets, even in July, 1937, at Rs. 5 to Rs. 5-6 per lb. Similarly, take the spot price for 1937 in Yokohama which was Rs. 5-2 per lb. Adding to this the freight, insurance, and carriage charges of Rs. 6, and duty of Rs. 2-2-6 the total will come to Rs. 7-10-6 per lb., whereas the price, even in April of 1937, was as low as Rs. 6-7 per lb.

This clearly shows that Japanese silks have been sold in Indian markets at prices below the cost of production. They have also been sold in European and American markets at very much higher rates than those in Indian markets.

Again, take the average declared values of Japanese imported silks:

Year.	Declared value per lb.	Spot price in Yokohama per lb.
	Rs. A. P.	Rs. A. P.
1935-36	2 8	3 15 6
1936-37	3 6	4 10 0
1937-38	4 12	4 5 3
		to
		5 2 0

The spot prices in Yokohama during the above years have been very much higher than the declared values for Japanese silks in India.

Prices of Chinese silks in India in 1936-37, and 1938 were as follows:

	Rs. A. P. Per lb.	Rs. A. P. Per lb.
1936	4 12 6	to 5 11 6
1937	3 11 0	„ 4 12 0
1938	4 1 6	„ 4 14 6

The cost of production of silk in China in the year 1936 was about Rs. 4-14 per lb. and on this basis the Chinese silk should not have sold at anything less than Rs. 7-5-6 per lb. But the prices of Chinese silk in India were far below that figure. The cost of production of Chinese silk in 1937-38 is not available, but the price of cocoons could not have been anything less than Rs. 4-3 per lb., i.e., the prices obtained in 1936. This clearly indicates that even Chinese silks have sold in Indian markets at prices below cost.

57. India imports both white and yellow coloured silks from foreign countries. The imported filature reeled silk is uniform in size and has better winding qualities. The white imported silk loses less in degumming than the Mysore silk, while the yellow imported silk loses more than the Mysore silk. In tenacity, colour, lustre and feel, Mysore silk is superior to imported silk. The demand for the imported silks is mostly due to their cheapness.

58. Depreciation of Chinese and Japanese money has intensified the competition with Indian silk as compared to the year 1931 when the Japanese money was depreciated to about 50 per cent. and Shanghai Dollars by 55 per cent., and Hongkong Dollars by 30 per cent. compared to 1934.

60. There are no imports of silk wastes into India.

61. The percentage of silk waste depends upon the quality of silk reeled and also cocoons used. Charka silk gives less waste than filature silk. The percentage of Charka silk to Charka silk waste varies between 45 and 55 according to the grade of the silk reeled, whereas in the filatures, the percentage of silk waste is 70 per cent.

63. The production of cross-breed layings in Mysore State was six lakhs of disease-free layings in 1931-32, and it has increased very rapidly and, in fact, the production in 1937-38 reached 75 lakhs of disease-free layings. The percentage of silk waste to silk is about 60 in the filature, and the percentage of Charka silk waste varies between 45 and 55 according to the quality of the silk reeled.

64. A Spun Silk Mills of 3,000 spindles has been erected at Channarayana, and the work of training operatives is proceeding. The Government of Mysore assisted to form the Company in 1936. They hold 10 per cent. of the share capital of the Company, and have granted certain useful concessions to the Mills. The information as required in Questions 29 to 39 will be supplied by the Spun Silk Mills.

65. Excepting motors and boilers all the machinery required for silk filatures could be manufactured in Mysore, and the price of local-made machinery is estimated to be only about 60 per cent. of imported machinery.

66. In the year 1933-34, the exports of Mysore silk wastes were as low as 87,634 lbs. The trade gradually revived in 1934-35 and the quantity of silk waste exported in that year was 269,403 lbs. In 1935-36, the quantity exported amounted to 412,745 lbs. In 1936-37 it went down to 303,963 lbs. and in 1937-38 it has gone down to 171,237 lbs. The gradual fall in exports in the past two years is due to the demand created locally for a large quantity of raw material by the establishment of the Mysore Spun Silk Mills. The figures of export of Mysore silk waste are noted below:

Year.	Quantity exported in lbs.
1932-33	117,829
1933-34	87,634
1934-35	269,403
1935-36	412,745
1936-37	303,963
1937-38	171,237

India produces about 8 to 9 lakhs of pounds of reeler's silk waste now. Besides the above quantity, large quantities of "throwster's" waste are also available in India. It is quite possible that the total raw material available in India for making spun silk is about 10 to 12 lakhs of pounds per annum. Since there is adequate quantity of raw material in India, and as there is an abundant home market, it is desirable to increase the production of spun silk in India.

67. There is very little export trade of silk fabrics manufactured in Mysore. Small quantities of Mysore silk fabrics are exported to Singapore, Ceylon and Burma.

68. There is no doubt that there has been an improvement in the classification and in the procedure also adopted by the "Indian Customs", but it has yet serious defects to be remedied. The "Indian Customs" fix the tariff valuation for the whole year and silk prices have been so fluctuating that the levy of duty on the basis of annual valuation is unsatisfactory. Therefore, this method should be given up, and the duty should be levied on the invoice values of the silk imported. Under the present system, there is considerable scope for silks of higher values to pass off under silks of lower values.

69. The exact measure of protection required should be such as to raise the price of imported silk at least to the level of the fair selling price of Indian silk and this works out to Rs. 3-10 per lb. to-day. The previous Tariff Board had fixed the fair selling price of Indian silk at Rs. 6-2-0 per lb. The cost of production of cocoons has not gone down. Therefore, the fair selling price of Indian silk may be retained at the previous figure of Rs. 6-2-6 per lb. The declared value now is Rs. 2-8 per lb. of silk. Therefore, the protection required is Rs. 3-10 per lb. If the duty is less than this, the Sericultural Industry in India would suffer. Besides the duty on raw silk, there should be corresponding duties on silk fabrics, thrown silk, spun silk, noils, etc.; otherwise the object of giving protection to raw silk would be frustrated due to increased imports of silk fabrics, spun silk, noils, etc., from foreign countries.

(b) The duty proposed should be a specific one.

(c) The period for which the protection should be granted must extend to 15 years from the date on which such increased protection is given effect to. The data and the reasons are given in the letter, dated the 23rd June, 1938 of this Association to the Tariff Board and in the memorandum annexed to the above letter.

70. If raw silk only is protected without levying corresponding increased duties on spun silk, silk fabrics, warps, etc., the handloom and the textile industries in India would suffer as manufactured articles and substitutes would be imported into India in larger quantities. It is absolute necessary to safeguard the interests of the textile and handloom industries in India and, therefore, the duties should be all-round as suggested above. The handloom industry stands to gain by adequate protective duties against imports of silk fabrics as the production of silk fabrics in handlooms in India will increase. No other industry is likely to be affected by increased protective duties.

71. About 50 per cent. of the cost of silk fabrics is represented by the cost of raw silk. The cost of raw silk in organzine is about 80 per cent. and that in tram is about 95 per cent.

72. At the time of the last Tariff Board enquiry, the area under mulberry was 36,000 acres. But to-day, on account of increased competition from Japan, the area has fallen down to the low figure of about 26,500 acres. The protective duty that was given in 1934, has proved quite inadequate to arrest the gradual decline of the industry. If the protection is to be effective, the duties proposed by this Association should be granted. Otherwise, the industry would suffer.

73. The Government of Mysore formed a Sericultural Board with a view to study the needs of the industry and to co-ordinate the several activities of the industry. Its findings have generally been upheld by Government and increased grants have been made to the Sericultural Department for the improvement of the industry. A Draft Bill for "Seed Control" was prepared by the Board of Sericulture and the Mysore Silk Association has been educating the ryots about the benefits of such a measure. Recently, the Mysore University have instituted a Diploma Course in Sericulture

which comes into force from the year 1940. Marketing organization suggested by the Indian Tariff Board could not come into force on account of the precarious nature of the industry. As already stated 'conditioning houses' are desirable. The scientific tests cannot as yet be introduced as Charka silk does not admit of such tests. After the filatures are regularly started the testing house could be established.

The Government of Mysore have increased their grants to the silk industry for effecting improvements in the industry with a view to reduce the cost production of Mysore silk. At the time of the last Tariff Board enquiry, the budget of the Mysore Sericultural Department was only Rs. 1,00,000, while it was more than Rs. 2,18,000 in the year 1937-38 and will further increase in the year 1938-39. The Government promoted the Mysore Spun Silk Mills and have assisted in the formation of a joint stock company for starting filatures in Mysore. Research work of practical value has been undertaken with the aid of Government of India at the Government Silk Farm, Channapatna. Practically in every branch of the industry, the activities of the Mysore Government have increased considerably.

74. If adequate protection is granted for a period of 15 years it is possible to reduce the cost of production appreciably. The amount of reduction that could be secured could be safely estimated to be 50 per cent.

In the cost of production of silk, cocoon costs are the major item being about 80 per cent. of the total cost of silk, and in the case of production of cocoons, the cost of mulberry leaves forms about 75 per cent. Therefore, the major item in which costs have to be reduced is the cost of production of mulberry leaf. Tree mulberry leaf can be produced at half the cost of bush mulberry leaf. In the 'bush' cultivation itself, costs can be reduced by the introduction of seedling plantations, grafting and use of groundnut oil cake manures, etc. We can safely expect a reduction of 20 per cent. on these items.

By the increased use of cross-breeds, the yield per acre can be increased by about 10 to 15 per cent., and by the use of examined seeds, the prevention of losses of crops due to pobrine could be altogether eliminated. There is possibility of reducing these losses and the gain on that account may be computed to be about 20 per cent. In the net result, the costs of production of silk could be reduced by about 50 per cent.

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(8) *Letter from the President, Tariff Board, to Shamsuddin Khan, Esq., Secretary, Mysore Silk Association, Channapatna (Mysore), No. 683, dated the 15th July, 1938.*

The Board has received a copy of the prospectus which the Mysore Spun Silk Mills, Limited, issued to the public. In paragraph 2, I find that in 1934-35 the imports of spun silk yarn alone are shown as 3,293,063 lbs. I do not know how you have been able to obtain this information. From the figures supplied by the Director-General of Commercial Intelligence and Statistics, I find that that is the total quantity of yarn of all kinds imported into India. You are probably aware that since 1934-35, silk yarn has been divided into three groups, viz., (1) yarn made from silk other than waste or noils, (2) yarn made from silk waste and (3) yarn made from silk waste and noils. From 1937-38, there has again been an alteration and now yarn made from noils is shown separately from yarn made from silk waste. The Board is very anxious to know the imports of spun silk yarn alone since the Tariff Board reported as they want to have an idea of the extent of the home market. Your figures evidently are not correct because they show the total figures of yarn imported unless it is proved that the bulk of that import consisted of spun silk yarn. As you have been dealing with this matter for sometime, I would like you to send me fuller information on the subject.

(4) *Letter No. 59, dated the 18th/19th July, 1938, from Mr. K. Shamsuddin Khan, B.A., Hon. Secretary, Mysore Silk Association, Channarayana, to the President, Tariff Board.*

I thank you for your letter No. 683, dated the 13th July, about the imports of spun silk yarn indicated at 3.3 million pounds. This information is available on page 33, paragraph 2, of the "Review of the Trade of India" in 1935-36. For favour of your ready reference I give below the extract:—

"Imports of silk yarn, the bulk of which consisted of yarn made from waste or noils, rose from 3.3 million lbs. valued at Rs. 78 lakhs in 1934-35 to 3.6 million lbs. with a declared value of Rs. 84 lakhs in 1935-36."

I note below the imports of spun silk yarn since 1934-35 up to date. These figures have been taken from the Sea Borne Trade. It is seen that the imports of spun yarn for the year 1934-35 are 3,163,841 and the noils 129,122 lbs. The total of the two 3,293,063. The word noil in the bracket is obviously a printing error.

Year.	Made from silk other than waste or noils.	Made from silk waste or noils.
	Lbs.	Lbs.
1934-35	129,222	3,163,841
1935-36	113,536	3,514,859
1936-37	176,103	2,268,152

For 1937-38.

	Lbs.
Made from silk waste	1,584,298
Made from noils	474,911
Others	278,079

Silk yarn, noils and warps.

Year.	From China.		From Japan.		Total from all countries.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Lbs.	Ra.	Lbs.	Ra.	Lbs.	Ra.
1931-32	342,873	9,28,590	115,997	5,08,482	1,710,366	51,17,590
1932-33	417,761	11,20,690	1,186,745	40,35,584	3,010,189	88,35,641
1933-34	615,026	14,60,498	814,322	21,79,716	2,027,681	46,73,911
1934-35	492,019	12,77,460	1,834,689	47,55,969	3,293,063*	78,15,580
1935-36	483,389	12,53,001	2,376,703	56,50,391	3,628,395*	83,96,959
1936-37	467,746	10,58,990	1,657,239	42,98,395	2,444,260*	60,66,549
1937-38	203,756	5,49,412	1,790,518	47,77,090	2,337,288*	61,18,016

* Details for silk yarn noils and warps from 1934-35.

	Made from silk other than waste or noils.		Made from silk waste or noils.	
	Quantity.	Value.	Quantity.	Value.
	Lbs.	Ra.	Lbs.	Ra.
1934-35	129,222	4,96,511	3,163,841	73,19,069
1935-36	113,536	4,88,370	3,514,859	79,08,589
1936-37	176,108	7,04,028	2,268,152	53,62,521

For 1937-38.

	Quantity.	Value.
	Lbs.	Ra.
Made from silk waste	1,584,298	42,61,842
Made from noils	474,911	4,83,814
Others	278,079	13,72,360

(5) *Letter from the Mysore Silk Association, No. 81, dated the 17th August, 1938.*

When the Mysore Government representatives were being examined the Chairman wanted to know the quantity of the Government stocks held by the Japanese Government, and I had replied that the probable stocks would be 38,000 bales. This figure I had given from my memory and from the recent report from Yokohama "Raw and Waste Silk Report", dated July 15th, I find that the total stocks are about 44,000 bales. I shall thank you to kindly correct the figure accordingly. I note below the extract from the above report:

"*Government stocks:* Although it is not possible to ascertain definite figures of the stocks held by the Government, it is estimated from the information available that at the end of June approximately 44,000 bales were held in custody, after taking into account recent deliveries against previous sales and new purchases."

29. The Mysore Chamber of Commerce, Bangalore.

(1) *Letter from the Secretary, Mysore Chamber of Commerce, Bangalore, No. 145, dated the 6th June, 1938.*

I am directed to submit six copies of the Memorandum of the Mysore Chamber of Commerce, Bangalore City, on the question of further protection to the Indian Sericultural Industry, for the very kind consideration of the Board.

Memorandum to the Tariff Board on Protection to Sericulture.

1. The Sericultural Industry is one of the ancient industries of Mysore. It is essentially a rural industry. The growing of mulberry, the rearing of silkworms, the reeling of silk and the weaving of silk fabrics and other processes connected with the silk industry have a very important bearing on the rural economy of the State, and are intimately connected with the prosperity of agriculture over a large area in the State. Mulberry is an important commercial crop and rearing of silkworms is an important subsidiary industry to agriculture. In 1914-15, only about 25,000 acres were under mulberry cultivation in the Mysore State. In the course of about twelve years, this area increased to 54,000 acres, due to favourable prices that obtained then. The area now has reduced to practically one-half of the above. In the different branches of the sericultural industry such as mulberry cultivation, rearing of silkworms, trading in cocoons, reeling of silk, etc., it has been computed that before the present depression in silk trade set in, nearly two lakhs of families used to find occupation of one kind or another. But now, owing to the severe depression caused by foreign competition, there is great dislocation in agricultural economy in parts where sericulture is practised.

2. *Its national Importance.*—The sericultural industry in Mysore is not merely an important factor in the economic life of the people of the State, but its prosperity or decline has an important and direct bearing on the structure or the rural society as a whole. Thus the problems connected with the sericultural industry in Mysore are of vital significance to India. The position may be further elucidated. Out of a total annual consumption of about 4 million lbs. of raw silk in India, India accounted for 2 million lbs. of which Mysore State alone produced nearly 50 per cent. indicating the important part played by Mysore in the textile industries of the country. It is therefore of the utmost importance that this industry of Mysore should be saved from ruthless foreign competition, not only in

the interests of the State, but also in the larger interests of India as a whole and further in the interests of British Empire as silk is of great importance in defence measures and India is the only producer of silk in the Empire.

3. *Extent of Depression in Mysore.*—The extent of depression in the sericultural industry of the State due to foreign competition that was alarming in the extreme when the Tariff Board conducted its first enquiry has increased due to increased competition from foreign countries. The remedy lies in adequate protection. It has been already stated that due to the existing depression the acreage under mulberry cultivation in the State has fallen from 54,000 to about 27,000 acres which may be taken as an index of the amount of suffering caused by loss of employment. Before the present period of depression set in, Mysore was exporting to different silk-weaving centres in India, after providing for her own internal consumption, raw silk to an extent of 930,618 lbs. valued at Rs. 75,33,000 (1925-26). Since then, there has been a considerable decline in the quantity and value of her exports of silk. Obviously, this decline is a sufficient indication of the nature and extent of the seriousness of foreign competition, but what is more alarming is the extent to which foreign raw silk has displaced Mysore products even in its home market. When the sericultural industry of the State was in a normal state of prosperity it can be said without fear of contradiction that the Mysore silk enjoyed special preference by reason of its natural superior quality and its intrinsic worth as compared with the foreign products. In 1928-29, only 19,875 lbs. of foreign silk were imported into the State; and within the short space of two years, i.e., in 1931-32 the quantity imported was 36,560 lbs. and in 1937-38 the total imports have reached 423,616 lbs. (up to end of December, 1937). This is a state of affairs which calls for special measures for the protection of the industry from the utter ruin with which it is threatened.

4. *Depression in India.*—That the foreign competition has seriously affected the sericultural industry in India can be gathered from a close study of the figure of imports of raw silk into India.

5. *Decline in the prices of foreign silk.*—Even more than the increase in the volume of imports of foreign silk into India, the phenomenal decline in the price of imported silk calls for serious consideration. This is the direct and inevitable result of the dumping in of foreign silk into India. It has been computed that the cost of production of Mysore silk which was about Rs. 6-8 per pound even for inferior grades has not materially changed. It is naturally more for filature silk. In the year 1927, which can be taken as the normal year, so far as the Indian sericultural industry is concerned, the price of Mysore silk varied between Rs. 9 and Rs. 10-4 per pound according to quality. From then onwards there was a gradual decline in prices, until at last in 1933, Mysore silk sold from Rs. 5-8 to Rs. 6-8 per lb., i.e., at prices below the normal average cost of production due to the pressure of foreign competition. The following statements give the details of Mysore silk prices:—

—	1933	1934	1935	1936	1937	1938
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
January . .	5 8 6	4 0 6	4 3 6	4 6 0	5 5 0	4 9 6
March . .	5 7 0	4 3 6	4 7 0	4 3 6	5 14 0	4 9 6
July . .	4 6 6	4 0 6	4 3 6	4 1 0	5 5 0	4 8 0
September .	4 3 6	4 5 0	4 4 0	4 2 0	5 2 0	(in May) ..

In May, 1938, its price has further declined to Rs. 4-3 per lb. The prices of foreign silk had gone up in some months of 1937, but now the price has gone down again to Rs. 4-14-6 per lb. for Canton silks. It is impossible for the indigenous silk to successfully compete with the imported variety. The continuance of such an unhappy state of things cannot but sap the very foundations of the Indian sericultural industry. With the efforts that are now being made in India for the improvement of the sericultural industry the cost of the indigenous silk will be gradually reduced. But if in the meantime adequate protection is not given against the fatal competition of foreign silk, these improvements will not have time to produce their effect. When once the local industry is killed it is impossible to resuscitate it. This is a very serious position of which due notice should be taken. Silk weaving industry and sericultural industry stand or fall together.

6. *Exchange variations.*—An important factor contributing towards the capture of the Indian silk market by China and Japan has been the depreciation in the exchange value of the currencies of these countries.

Therefore in affording protection to the sericultural industry in India, it is very necessary that proper account should be taken of, and proper allowance made for, this factor of economic disturbance.

7. *Need for adequate protection.*—The Tariff Board after detailed investigations recommended a duty of Rs. 2-6 per lb. on imported silk or an *ex-duty* of 50 per cent. *ad valorem* whichever was higher. The Tariff Board submitted their report sometime in May, 1933. The Government of India granted protective duties from April, 1934. During this period the prices of silk had fallen by one more rupee. The Government of India sanctioned duties at 25 per cent. *ad valorem* plus 14 annas per lb. This then worked out only to about Rs. 1-10 per lb. This duty fell short of the duty recommended by the Tariff Board by As. 12 and Rs. 1-12 per lb. less than the actual requirements of the case. This Chamber and other Chambers of Commerce drew the attention of the Government of India pointedly to this fact. But the representations were of no avail. To-day the position is even worse. The *ex-duty* price of imported silk is about Rs. 2-12. The fair selling price of Mysore silk remains practically the same, viz., Rs. 6-2. Therefore the duty required is fair selling price minus the *ex-duty* price of foreign silk, viz., Rs. 3-8 per lb. Without this duty on imported silk Indian silk industry will suffer considerably and will in due course be killed.

Duty on Warps, Spun Silk and Noils, Silk Fabrics and Artificial Silk should be correspondingly increased, otherwise instead of raw silk, finished goods and substitutes will be imported to a large extent than now.

The Government of India gave protection to silk industry only for 5 years. This period is very inadequate to reorganise the industry as the improvements to be introduced take a very much longer time to bear fruit. Therefore it is necessary to give protection for at least another ten years. The Government of Mysore have already introduced many a measure calculated to reduce the cost of production of Mysore silk. They have been spending more than 2 lakhs of rupees a year on Sericultural Department. The protection should be extended over a long period, say, at least for ten years more.

(2) *Letter from the Secretary, Tariff Board, to the Secretary, Mysore Chamber of Commerce, Bangalore, No. 626, dated the 24th June, 1938.*

I am directed to request you to kindly supply the Board with three copies of all correspondence that passed between the Association and the Secretary to the Government of India, Department of Commerce, since

April, 1934, dealing with the question of the enhancement of the protective duties on silk and artificial silk products and in particular the Memorandum presented by Diwan Bahadur Rajasabhabhushana K. R. Srinivasa Iyengar, M.A., on behalf of the Chamber.

(3) *Letter from the Secretary, Mysore Chamber of Commerce, Bangalore, No. 847, dated the 19th July, 1938.*

With reference to your letter No. 626, dated the 24th June, 1938, I have the honour to forward under separate cover three copies of the correspondence passed between the Mysore Chamber of Commerce and the Secretary to the Government of India, Department of Commerce, since April, 1934, as also the Memorandum presented by Diwan Bahadur Rajasabhabhushana Mr. K. R. Srinivasiengar, M.A., on behalf of the Chamber, on 28th July, 1935, for favour of information [Enclosures not printed].

(4) *Letter from the Secretary, Mysore Chamber of Commerce, Bangalore, No. 409, dated the 9th August, 1938.*

I have the honour to submit herewith for favour of consideration five copies of the replies to the general questionnaire issued by the Tariff Board, in regard to the Silk Industry in India.

Replies to the Questionnaire issued by the Indian Tariff Board in regard to the Silk Industry in India.

1. There has been no progress in the Sericultural Industry in Mysore since protection was granted in 1934. On the contrary, on account of the inadequate protection granted, the area under mulberry declined to about 25,000 acres in 1936-37. Due to the temporary rise in the price of cocoons and of silk during a few months in 1937, the sericulturists extended their mulberry gardens to the extent of about 5,000 acres. But unfortunately, the prices fell again and the old gardens have been neglected and the newly planted gardens did not receive the attention required. The area under mulberry in 1937-38 may be about 27,000 acres only.

Mulberry cultivation and silkworm rearing go hand in hand and the person who grows mulberry usually rears silkworms also. Reeling is carried on as a separate occupation but even in this case, the reelers or the owners of a reeling establishment are also agriculturists. Marketing of silk is carried on by a few silk merchants in Bangalore, Siddaghatta, Chintamani and a few other places. More than a lakh of families are directly and indirectly benefited by the silk industry. Sericulture is a subsidiary occupation and helps the agriculturist to add to his income.

2. The sericulturists do not require much capital for their operations. The sericulturist grows mulberry on his own land using mostly his own material and labour. His cash outlay is not very much. But whenever he wants money, he usually borrows either from the reeler of cocoons or from a Co-operative Society. The reeler has got his own capital and sometimes borrows from the silk merchant on the security of the silk deposited with him. He has to pay interest varying from 8 to 10 per cent. if the silk is not sold and the accounts adjusted in a month's time. The silk merchant mostly utilises his own capital and sometimes borrows from banks and other institutions. Cocoons produced by the rearers are sold to the reeler, the cocoons are reeled and the raw silk is sold by the reeler through the silk merchants. The silk merchants recover a commission of

about 1½ annas per pound of silk from the reeler and probably an equal sum from the purchaser.

When cocoons are sold to the reeler through a broker a small commission has got to be paid by the reeler to the broker.

The Government of Mysore through the Department of Sericulture have arranged to grant long term loans to sericulturists and reelers at low rates of interest.

3. The maximum production of cocoons and raw silk obtainable with about 27,000 acres of mulberry would be about 119 lakhs of pounds of cocoons and about 10 lakhs of pounds of raw silk. Accurate information regarding actual output of cocoons and silk in 1937-38 is not obtainable but it may be roughly stated that actual production of cocoons in 1937-38 may be about 103 lakhs of lbs. and silk of over 7½ lakhs of lbs. Owing to the variation in rainfall and depression in silk prices the maximum obtainable could not be obtained.

5. In Mysore, the Mysore race of worm is reared by over 75 per cent. of the sericulturists. The cross-breed races are also reared by about 25 per cent. of the people. Chinese and Japanese races are reared in the Government Silk Farms and by a few selected sericulturists under the supervision of the Department for producing seed cocoons.

9. The worms reared are mostly from local seed. The production of seed is organized separately from the production of reeling cocoons. The Department of Sericulture have systematised work in the seed cocoons producing areas of Bidadi and Kunigal and a large number of Government and aided grainages have been located, in sericultural areas and these supply disease-free layings both of Mysore race and of cross breeds. The Sericultural Societies also supply disease-free seed to its members.

10. The Government of Mysore have not passed any legislation as yet but a draft regulation is under the active consideration of the Mysore Silk Association. The quantity of disease-free layings supplied to the sericulturists in Mysore has been increased considerably during the last five years. It is stated that in 1937-38 about 100 lakhs of disease-free layings were supplied to sericulturists as against 32 lakhs in 1931-32. The sericulturists have realised the advantages of using disease-free seed. The Mysore race of worms is multivoltine and five to six broods are obtained in a year.

13. By a systematic work in seed cocoon producing areas and by the supply of disease-free layings, the incidence of pebrine has been minimised.

14. Formerly, the sericulturists were losing two crops out of 5 or 6 crops in the year on account of the bad seed. This loss has been avoided and the crops are harvested successfully. This is due to the systematic work in seed areas and in grainages.

15. The worms are fed on mulberry leaves. The mulberry leaves are produced by the man who rears the worms. Our information is that mulberry is not grown for the sake of selling the leaves only.

16. (a) The Department of Sericulture have been conducting experiments on manures best suited for mulberry and the results are being communicated to the sericulturists. Seedlings are also being raised for being planted as hedges as these give a bigger yield of leaves. It has not been possible to reduce the expenditure on mulberry garden but steps are being taken to increase the output of leaves for the same expenditure.

(b) Mulberry is grown in the form of bushes and 5 to 6 crops can be harvested in a year. Mulberry is grown both on dry lands as well as on irrigated lands. The yield of leaf depends upon the quantity of manure, water supply and other agricultural operations.

18. At present the fall in the wholesale price of cocoons and raw silk is greater than that in the case of some of the food crops including rice.

19. Owing to the shortness of the period of protection, it has not been possible till now to effect any reductions in the cost of production of mulberry leaf.

22. Experiments have been conducted by the Department of Sericulture to produce hybrids between pure Mysore and pure Japanese and Chinese races. The results have been very satisfactory and the sericulturists are very eager to rear these hybrid races.

24. Rate of reeling cocoons per pound in Channapatna area—one of the main centres of the industry:—

Mysore Race.

Year.	Minimum.		Maximum.	
	As. p.		As. p.	
1931 . December . . .	3	0	January . . .	5 0
1934 . January, February, March and August .	3	0	October and Nov- ember . . .	4 3
1935 . July . . .	3	2	July . . .	4 6
1936	3	0	December . . .	4 4
1937 . June	3	6	February and March	5 8
1938 . May	3	10	January to April	4 4

25. The rearer of worms usually sells the cocoons as soon as they are ready as he cannot afford to keep them till prices suit him.

The following are the average prices obtained by the rearer per pound of cocoons Mysore race from 1933 to June 1938:—

Year.	As. p
1933	3 9-30
1934	3 4-95
1935	3 8-50
1936	3 4-00
1937	4 6-00
1938	4 1-00

26. Almost all the silk produced in Mysore is in country charkhas. The production of filature silk may be estimated to be about 10,000 lbs.

28. The initial cost of equipping a country charkha is from Rs. 10 to Rs. 15. The outturn per day per charkha is 1½ lbs. Each charkha will last for about 5 years with occasional repairs.

30. Our information is that Indian filatures are not at any serious disadvantage in respect of the items of cost of reeling.

31. The fact that the Mysore Silk Filatures Company has arranged to start a filature with 200 basins indicates that that is the economic unit suited to our conditions.

33. No accurate statistics are available but there has been a reduction of about 40,000 families since 1931-32 as the number of families benefited by the industry now is just over a lakh.

35. (1) The wages paid to the reelers in charkhas and in a filature varies from 6 to 8 annas per day.

(2) The sericultural industry in India is in no way hampered as the Indian labour is not inefficient. The Department of Sericulture have arranged to give instructions in the several forms and institutions under its control.

40. Throwing is carried on as a separate business.

42. Owing to the demand for better kinds of silk, the reelers in charkhas have improved the quality of silk produce to the extent possible in charkhas. The production of first class charkha silk in Mysore has increased during the last 5 years. Re-reeling is not practised as a separate operation but is usually done by the weavers before the silk is twisted and put on the loom.

45. In India, silk is used for the manufacture of silk fabrics, gold thread, nakki and brocade.

46. (i) The demand for Mysore Charkha Silk in India has gone down considerably due to the import of better reeled filature silk from Japan. If Mysore filature silk can be put on the market at competitive rates there would be a very great demand for our silk due to the innate superior qualities.

(ii) The total production of raw silk in Mysore may be estimated to be over 7½ lakhs of lbs. in 1937-38.

47. The following is the statement showing the total quantities of raw silk and silk waste exported from Mysore State and the quantity of Mysore Silk used locally, from 1932-33 to end of December, 1937 (April to end of March each year).

Year.	Export of raw silk.	Export of silk waste.	Quantity of Mysore Silk used locally.
	Lbs.	Lbs.	Lbs.
1932-33	377,198	117,829	427,950
1933-34	430,212	87,634	354,885
1934-35	461,952	269,403	292,514
1935-36	511,851	412,745	199,026
1936-37	532,506	303,963	169,942
1937-38 (up to end of December, 1937) . .	406,162	139,063	...

48. Mysore silk is not being exported outside India. The establishment of a Conditioning House would no doubt help to stimulate trade provided the production of high grade filature silk is increased.

50. The prices at which Mysore silk have been sold in Mysore do not differ from those in the distant markets.

51. No facilities have been provided for sorting or grading of silk. Charkha silk is not capable of being graded scientifically.

52. There is no marked difference.

53. The silk merchants in Mysore do not directly import foreign silks from the country of origin, and they get their supplies from the wholesale

importers at the Sea-port Towns, viz., Bombay and Madras. The following statement gives the quantities of foreign silk imported into Mysore State:—

Year.	Quantity imported in Lbs.
1932-33	169,179
1933-34	189,586
1934-35	230,482
1935-36	293,595
1936-37	379,913
1937-38	501,861

Rates of Canton and Japan Silk of 20/22 Denier at Bombay and Mysore, Charkha 1st quality.

Year.	Canton.		Japan.		Mysore Charkha 1st quality (Ban- galore rate).
	Rs. A. P.	White. Rs. A. P.	Yellow. Rs. A. P.		
1933	3 5 4	...	...		3 15 0
	to				to
	4 14 11				6 0 0
1934	3 6 5	...	...		3 12 0
	to				to
	4 6 0				4 14 0
1935	4 6 0	4 0 0	3 14 0		4 0 0
	to	to	to		to
	5 12 6	5 12 0	5 10 0		5 14 0
1936	4 12 0	4 14 0	4 13 0		8 15 0
	to	to	to		to
	5 11 6	6 15 0	6 3 0		6 0 0
1937	4 12 0	5 8 0	5 8 0		4 11 0
	to	to	to		to
	5 11 0	6 14 6	6 13 6		6 6 0
1938	4 1 6	5 6 6	5 4 0		4 5 0
	to	to	to		to
	4 14 6	5 13 0	5 11 0		5 10 0

54. Artificial silk competes with indigenous silk indirectly and restricts the demand for natural silk.

56. This is a large question. In our opinion there is double competition, that is from the raw silk and artificial silk. The rates at which foreign silks are sold in India appear to be very much lower than those in their own home markets.

57. The imported filature silk has better winding qualities, loses less in degumming than the indigenous charkha silk. The Mysore filature silk is as good as the imported filature silk in winding quality and much better with regard to tenacity and elasticity.

58. The depreciation of Chinese and Japanese money has accentuated the competition of imported silk with Indian silk. Compared to 1931, the Yen has depreciated by 45 per cent., the Shanghai Dollar by 55 per cent. as compared to 1932, and the Hongkong Dollar by 30 per cent. as compared to 1934.

61. The percentage of silk waste is about 50.

62. The average price of charkha silk waste is about 5 annas a pound at present.

63. The supply of cross-breed layings has been increased from about 6 lakhs of layings in 1931-32 to 70 lakhs of layings in 1937-38. The charkha owners using cross-breed cocoons for reeling find that there is less waste than formerly.

64. A Spun Silk Factory called the Mysore Spun Silk Mills, Limited, with a capital of 10 lakhs of rupees has been started at Chaunapatna with the assistance of the Government of Mysore. The factory has already commenced work.

65. Almost all the machinery required for the silk filature can be manufactured in India with the exception probably of electric motor and boilers. The cost of machinery manufactured locally would be lower than that of the imported machinery.

66. The exports of silk waste increased since 1934-35 and decreased since 1936-37. Since silk waste is the raw material required for the production of spun yarn and since spun yarn is imported in large quantities into India, it is not desirable to stimulate the export of silk waste from India.

67. Silk fabrics are not exported to any large extent to the countries outside India. The requirements of the Indian families residing in Burma, Ceylon and Singapore are met to some extent by the export of sarrees produced in Mysore.

30. Mysore Silk Filatures, Limited, Bangalore.

(1) *Letter No. 28, dated the 21st July, 1938, from the Chairman, the Mysore Silk Filatures, Limited, Bangalore City.*

On behalf of the Mysore Silk Filatures, Limited, I have the honour to send herewith 6 copies of—

- (1) Our memorandum on the present position of the silk industry in India and the need for effective protection; and
- (2) Our replies to the general questionnaire issued by the Tariff Board.

I request that these may be submitted to the Board. We are at the service of the Board for any additional information or evidence that may be required in support of our representation.

Enclosure I.

Memorandum submitted to the Tariff Board by the Mysore Silk Filatures, Limited.

In this memorandum, we shall confine ourselves to the aspects of Sericulture which immediately concern the Filature Industry.

We beg to state that in our opinion the protection for silk given by the Government of India (a duty of 25 per cent. *ad valorem* plus As. 14 per lb.) is too low to be effective. The period of five years is also too short for obtaining appreciable results in reorganizing a rural industry practised by a large number of unlettered villagers. It takes time to get them to adopt improvements, and the improvements themselves, such as planting mulberry topes, organizing grainages for producing hybrid seed, and improving reeling, take time to develop and bear fruit.

The last Tariff Board recommended the levy of a specific duty of Rs. 2-6 or in the alternative a duty of 50 per cent. *ad valorem* whichever was higher, and this they did at a time when the *ex-duty* price of imported silk was Rs. 3-12 per pound. Prices were then still falling. By the time the Government of India passed orders, the prices had fallen to an extent that would have made the recommendation of the Tariff Board inadequate even if sanctioned in full; but the Government of India sanctioned a duty much less than even this very moderate recommendation.

We beg to point out that inadequate protection is *actually worse than no protection at all*. The very object of protection is completely to eliminate losses in the industry sought to be protected, and to provide a reasonable inducement for the development of that industry. If loss is not

completely eliminated, there is obviously no protection. On the other hand the illusive appearance of protection may act as a snare by misleading people to their loss. For instance, relying on this protection a man may be tempted to plant mulberry, or to start reeling, and in consequence suffer losses, which further demoralize the industry. That the protection granted by the Government of India is inadequate is obvious from the fact that the area under mulberry has steadily dropped from 30,228 acres in 1934-35 to about 26,000 acres in 1937-38. This drop has not been the result of the competition of any other crop with mulberry or of any other occupation with silkworm rearing. It has been directly the result of the dumping of foreign silk.

An important change has taken place in the character and direction of the foreign attack on Indian sericulture. Formerly the bulk of imports came from China. Now, it is Japan that is responsible for practically the whole of the invasion which is overwhelming us. This change makes the position far more menacing, since the danger comes now from a perfectly organized national industry backed up by all the resources of a resolute and aggressive Government. In the period of depression the Japanese Government succoured Japanese sericulture by taking over several millions of pounds of raw silk on the understanding that this silk was not to be sold in America or Europe, but was to be let loose on a new market, obviously India. For instance in 1935 Japan shipped to India 1,863,056 lbs. of silk at an average price of Rs. 2.5-9 per lb. We have reliable information that during that year, the cost of production of silk in Japan was Rs. 6 per lb. The same year Japan charged Rs. 4.2 per lb. for silk she sold to America. Unless our sericulture is protected against this State-aided invasion it is to be overwhelmed and destroyed.

The point now arises—what would be an adequate protection? On what basis should it be determined? At a time when country-reeled or charkha silk found a ready market in spite of obvious defects, it was reasonable to take the cost of production of charkha silk as the basis for fixing the quantum of protection. But during the past five years an important change has come over the character of the Indian demand for silk. Charkha silk is not welcomed by throwsters and weavers; it is merely tolerated when there is no choice. The imports of well-reeled silk and the improvement of the handloom industry, consequent on the increasing demand for quality in goods, have brought about this far-reaching change. Charkha silk has definitely lost favour, and is maintaining a slippery foothold only by a ruinous sacrifice in prices. It has therefore no future in a struggle. Charkhas are bound to disappear and if filatures do not take their place the demand for cocoons will go with them. Charkhas are as a matter of fact even now weighing heavily on the rearing industry. It is not only impracticable but unwise to impede the course of evolution from Charkha to Filature. The best that can be done is to enable this transition to take place without involving unnecessary human suffering, and as we shall proceed to show, a protective duty adequate for establishing filatures will be found incidentally to be an effectual shelter for Charkha Industry during the period of transition. We are convinced that the only stable and effective demand for cocoons can come from filatures, and that therefore the only way of saving sericulture is to make it possible to establish filatures.

We shall now state what exactly we mean by an *effective demand* for cocoons. The demand to be *effective* must offer a price such as would be sufficient incentive for the production of cocoons. For cocoons, as for any other article, there is a price below which the producers will not consent to produce. The last Tariff Board who went carefully into this question considered five annas per pound a reasonable price at which the rearer might be expected to produce cocoons. We believe that this estimate is not too generous. The barest cost of production of cocoons over the greater part of the Mysore Sericultural area and in Kollegal is about four annas and five pies (As. 4-5) to four annas seven pies (As. 4-7) per lb., taking the

cost of mulberry leaf at 2·7 pies per lb., and *not taking into account remuneration for the working of the family*. The total production of cocoons per family may be taken at about 500 to 550 lbs. per year. If the family received 5 annas per lb. for this output the net again would be about Rs. 10. This cannot be considered a very attractive return for a year's almost continuous work; but yet experience seems to show that this scanty reward, with the hope of better days to come, which is never absent from the human heart, is just enough to prevent the family from giving up sericulture. Very probably, the absence of any other subsidiary industry to turn to, also contributes to this result. In whatever way the figure of As. 5 was arrived at, it receives convincing corroboration from facts.

In spite of the protection granted in 1934 the price of reeling cocoons in the State remained as a rule below four annas per lb., till the end of 1936, and during this period the acreage under mulberry fell from 32,869 acres in 1933-34 to about 26,000 acres. In 1937, prices went up spectacularly, and hovered with brief fluctuations, at a level well above five annas. During this brief and fitful prosperity an additional area of nearly 1,332 acres in 3 guntas was planted in the Taluk of T. Narasipur alone, in May and June, 1937. Just about then prices dropped but still kept round about five annas till October when they fell sharply below this level. They have not yet recovered but have moved down grade till they are now four annas four pies (As. 4·4) per lb. The result has been that the newly planted gardens have not received due attention, a small part has been abandoned, and the rest neglected.

This indicates (1) when the price of cocoons rises above five annas per lb., there is a tendency towards expansion of mulberry cultivation; (2) when it falls below five annas per lb. there is a tendency for new gardens to be abandoned and for old ones to be neglected.

N.H.—This may be obscured by the effect of outside disturbing factors such as a boom in groundnuts, or tobacco or cotton or other crops.

The conclusion seems to be irresistible that if the object is to maintain the existing level, a price of at least five annas per lb. should be assured to the Sericulturists. If the object is a rapid expansion of the industry, a slightly higher price than five annas may be necessary. If the price is permitted to fall below five annas per lb. the industry is in danger.

The question may be raised that if five annas per lb. was a reasonable price for cocoons in 1934 a slightly lower price might suffice now in view of efforts made to reduce cost in mulberry cultivation and rearing in recent years. It may be enough to say in answer that facts prove the contrary, because the evidence goes to show that when the price has fallen below five annas per lb. there has been a decrease in mulberry area. The reasons are not far to seek. Firstly, there has not been sufficient time for appreciable progress in the substitution of mulberry topes for bush mulberry; secondly improvements in seed have reached only a fraction of the sericultural population; and though these have probably benefited, yet the cost of production to be taken into account in fixing price is not that of the favoured few but of the bulk of producers. We may even go so far as to say that the acreage under mulberry (which is the index of Sericulture) cannot be maintained unless the price is such as would remunerate production on even the "Marginal" lands. We have also to consider that since at present credit sales to reelers are largely prevalent, the weakness of the charkha industry sometimes results in a transfer of its losses to the rearer. Some allowance has to be made for this.

We trust, we have said enough to show that a price of annas five per lb. is the minimum necessary for the stability of the industry, below which the average rearer will have no inducement to work. Even at that rate the return he gets is just on the margin of effectiveness. We submit therefore that the filature industry should be placed in a position to pay five annas (As. 5·0) per lb. for the cocoons which are its raw material.

In other words the pitch of production accorded should be such as to raise the price of filature silk to a level which would enable Indian Filatures (a) to pay five annas per lb. for their cocoons, (b) to manufacture the cocoons into a grade of silk which can compete with foreign imports and (c) to make as a result of their operations a reasonable manufacturing profit. If the filature is to pay annas five per lb. for its cocoons, what would be the cost at which it could produce silk? An estimate of cost has been given in para. 181 of the report of the last Tariff Board. Assuming the production at 1.5 lbs. of silk per basin in a filature of 200 basins the Tariff Board arrived at a cost per lb. of silk of Rs. 6-10-9. We are afraid this estimate is too low. We have gone carefully into these figures and we have had the benefit of the experience in the Mysore Government Filature, which we have recently purchased. The average production per basin calculated on the average of the usual sizes of 13/15, 20/22 and 28/30 is not 1.5, but something below 1.25. In a big filature of 200 basins where account has to be taken of a certain percentage of incompletely trained operatives, even 1.25 lbs. may be too high a figure to take, especially in the initial stages; and when we are thinking of the establishment of a new industry, we cannot afford to forget the importance of the initial stages. We give in table I our own estimate of the cost of production in a filature of 200 basins. According to this estimate the cost for a total production of 75,000 lbs. of silk will be Rs. 5,27,495 which works out to Rs. 7-0-6 per lb. Adding to this profit at 6½ per cent. we reach a fair selling price of Rs. 7-8 per lb.

To arrive at the pitch of protection necessary, we shall have to ascertain the *ex-duty* price of imported filature silk. This is not a point altogether free from difficulty. The present practice is to fix the Tariff value for the whole year. This is obviously unsatisfactory even if accurately done, a year being too long a time considering the rapidity and range of fluctuation of prices. Declared prices as the basis of Tariff Valuation are apt to be unsafe. While on the one hand there is scope for imported goods of higher values to get in under lower heads, there is on the other an opposite and even greater danger. Obviously the foreign exporters have a strong motive to avoid the appearance of dumping. If they declared low values, they would be convicting themselves of dumping, and invite higher protection against themselves. It is the foreign exporters' interest that the protective duty is as small as possible. In fact when protection was granted in 1934 it was declared to be subject to revision in 1939. That is to say, the foreign exporter knew that the protective duty would be increased if his declared *ex-duty* price was low. He could, by private arrangement, have a separate selling price.

Therefore rather than rely upon the declared price, it would be far safer to work back to the *ex-duty* price from the *actual sale price*, of foreign silk in Indian markets. To give a concrete example, the tariff valuation of Japanese Filature Silk has been fixed at Rs. 4-12. After this silk has paid the duty of 25 per cent. *ad valorem* and 14 annas per pound it could sell in Indian market at nothing less than Rs. 6-13 per lb., if the Tariff Valuation were correct. But it is actually being sold at Rs. 5-6 to Rs. 5-10 per lb. What does this show? If we were to work back from a selling price of Rs. 5-6 in the Indian market we would get an *ex-duty* price of Rs. 3-9-7 and not Rs. 4-12. The motive for this discrepancy will be obvious when it is considered that if the *ex-duty* price is taken at Rs. 4-12 the protection needed on the basis of an Indian cost of production of Rs. 7-8 would be Rs. 2-12 only, while if it is taken at Rs. 3-9-7, it will be Rs. 3-14-5. Interesting light is thrown on Japanese methods of competition by the price of Japanese organzine in the Indian market. The price per lb. of Japanese organzine thrown with 13/15 silk is Rs. 6-9. The price of corresponding Japan raw silk is Rs. 5-13, the difference between the two being only 12 annas. Now if an Indian Throwing Factory were to buy Japanese 13/15 silk at Rs. 5-13, and throw it into organzine, it would have to incur a cost of Rs. 2-4 for throwing, and could not possibly sell the

organzine at any thing less than Rs. 8-1. By this double-barrelled competition, not only does Japanese raw silk kill Indian raw silk, but Japanese Organzine directly hits the Indian Throwing Factories. There is no doubt whatever, that if this organised attack continues unchecked the next Indian Industry to suffer will be handloom weaving. Protection to Indian Sericulture is therefore essential protection not only to Indian Throwing Mills, but also to Indian handlooms. The magnitude of the Indian interest in jeopardy can be realised from the fact that there are about 60,000 handlooms working in all the parts of India producing annually fabrics worth about 10 crores of rupees. This raises protection for silk at once into a measure of all-India importance. If Indian Sericulture goes, the Indian Handloom Industry goes with it.

A fixed tariff valuation is obviously inappropriate. We do not believe that it would be safe to rely on invoices alone unchecked with reference to sale prices in the principal markets of India. The actual selling prices may be obtained from the Chambers of Commerce, Silk Associations, Departments of Industries and Commerce and other reliable sources; and monthly averages can be maintained in the Customs Office. Of course the suggestions outlined here will require careful elaboration, if adopted.

To conclude, we are convinced that the Indian Silk Industry is in greater danger to-day than it was 5 years ago, because it has to contend against a far more formidable and better equipped rival. The protection given five years ago was altogether inadequate, and the time fixed was also too short. We are of opinion that to safeguard Indian Sericulture the following measures are necessary:

- (1) The rate of import duty should be raised sufficiently to prevent foreign silk from selling in India at a price lower than the cost of production of Indian Filature Silk. At present this would be Rs. 7-8 *minus* Rs. 3-4-7 or Rs. 3-14-5. Since we do not know how much further foreign silks may drop in price, and also since it is possible that the attack of Chinese silk may again become operative while the cost of Indian silk is fixed by the prices of five annas per pound of cocoons assumed in our calculations, it may be better to adopt a formula rather than fix a specific duty. The formula may be Rs. 7-8 *minus* *ex-duty* price of foreign silk, *plus* (or *minus*) allowance for exchange fluctuation. We are aware that this formula assumes accurate and up-to-date statistical information, and may be difficult to work. An alternative method would be a specific duty which provides a margin of safety may be added.
- (2) The same rate of duty as on raw silk should be levied on silk yarn, thrown silk, spun silk and wrought silk of all descriptions.
- (3) The duty on silk piecegoods should be correspondingly raised.
- (4) Protection should be granted for a period of not less than 10 years.
- (5) Indian silk should get imperial preference in view of its being Empire resource of the first magnitude in peace and in war.

The above duty would be sufficient protection for charkha silk also. The cost of production of the best class of charkha silk is Rs. 5-12 per lb. Adding to this Rs. 8 as the cost of re-reeling, we get a competitive price of Rs. 6-4 per lb. The *ex-duty* price of foreign silks which compete with this quality is about Rs. 2-8-6. Adding to this the suggested duty of Rs. 3-14-5 we get a sale price for foreign silk of Rs. 6-6-0.

Enclosure II.

Answers to the General Questionnaire issued by the Tariff Board for Silk.

26. Out of the total quantity of about 520,000 lbs. of silk produced in the State not more than about 13,000 lbs. are fiature silk. Filatures are

the only power derived machinery for reeling silk. The rest of the silk is reeled on charkhas.

28. The initial cost of a charkha is Rs. 15 to Rs. 20. It should give about 1.5 to 2 lbs. of silk per day. The life of the charkha is 5 to 6 years.

29. The following is the cost of production of 1 lb. of raw silk reeled on the several appliances in—

1. Charkha (Average quality).

<i>Details.</i>		Rs. A. P.
Cost of cocoons 26 lbs. at As. 5 per lb.		8 2 0
Labour		0 12 6
Fuel		0 4 0
Water		0 2 0
Supervision and management		0 6 0
Depreciation		0 0 6
Selling expenses		0 4 0
Other expenses		0 3 0
Total		10 1 6
<i>Deduct cost of waste</i>		<i>0 5 6</i>
Cost for 2 lbs.		9 12 0
Cost of 1 lb.		4 14 0

2. Filature (per filature of 200 basins).

<i>Details.</i>		Rs. A. P.
Cocoons 16 lbs. at As. 5 per lb.		5 0 0
Transport, stifling, etc.		0 8 0
Labour		0 9 6
Supervision and management		0 8 10
Power light and fuel		0 4 0
Water and soap		0 0 6
Repairs and maintenance		0 1 8
Selling expenses		0 0 8
Other expenses including interest on capital		0 5 0
Total		7 6 2
<i>Deduct realization from waste</i>		<i>0 5 6</i>
Cost of one lb.		7 0 8

30. In point of natural advantages, we do not consider Indian filatures to be at any disadvantage in respect of any of these items. The only disadvantage is that being an infant industry in India they have to work out an organisation, train labour and perfect their technique by practical experience. All this takes time and if while they are struggling with their problems they are exposed to foreign competition, they are in danger of being killed before they reach industrial manhood. Perhaps, in regard to the cost of cocoon, Indian filatures are at a disadvantage because the price of cocoons as compared with the quality at present is high. The

Department of Sericulture is engaged in remedying these defects by improvement of mulberry cultivation, silk work, seed and rearing methods. If the industry is protected for a period long enough to admit of these efforts bearing fruit, the only serious advantage under which the Indian filature industry labours, will have been removed.

34. For filatures, the following scale of labour is necessary:—

1 Reeler for each basin	} These are skilled workers.
$\frac{1}{2}$ Cooker	
$\frac{1}{2}$ Knottor	
$\frac{1}{2}$ Examiner	
$\frac{1}{2}$ Skein maker	

Besides these, one overseer for 12 basins, a fireman, a mechanic, and a sufficient number of testers are necessary. A testing staff of 2 for every 100 basins may be required.

We have as yet practical experience only of the filature in Mysore, which has 34 basins. In Mysore, an adequate supply of labour is available. It takes nearly a year for reelers to attain full skill. In about 6 months they may be trained sufficiently to earn a wage.

35. The wages of reelers is the same—As. 8 per day in filature, in charkha and domestic basins.

We do not consider that the sericultural industry in India is hampered at all by the inefficiency of labour.

We believe that the best and most usual training for rearers is what they get by actual work in their homes, where young and old work together, and the traditional skill of about six generations is handed on from generation to generation. What is necessary is to improve the quality of this traditional method by introducing a leaven of modern improvements by means of trained Inspectors and Demonstrators. The Department of Sericulture is doing this on a well-organized plan. It would be very useful if short courses for raiyats' sons are also organized. We believe this is also being done.

Work in a reeling concern is the only way of training reelers. We have provided a training installation of 20 basins where recruits will be taken and trained for a few months before being taken on to the industrial unit. They will be trained in cooking cocoons, reeling, knotting and preparing waste. Our scheme is to give them a small stipend as an incentive to start with, and train them as quickly as possible to become wage earners. Every filature and specially every new filature will have to make arrangements for training labour. Skilled labour will have to be specially trained in examining, testing and skein making. Every filature will have to make its own arrangements. There are no existing facilities.

36. The block value of the filature of 34 basins we have purchased from the Government of Mysore is Rs. 8,750.

(a-c) Not taken.

The amount of Rs. 8,750 is the cost of plant and machinery.

37. We have given an estimate* for a filature of 200 basins. The cost of buildings, and plant and machinery will be Rs. 1,60,000. The details of other costs are also given in the estimates.

39. We consider a Working Capital of Rs. 1,30,000 necessary, assuming a turn-over once in three months. Our working capital is got by share subscription in a public company. We have no need to borrow capital.

40. We do not include throwing in the scope of our activities.

* Supplied as the enclosure to letter, dated the 22nd July, 1938.

42. The only improvements made so far in charkha reeling is that some establishments employ a smaller reel conforming to the standard 1.5 metres. The other blemishes such as harshness, uncleanness, unevenness and loose ends are inherent in the system itself. Re-reeling is necessary before charkha silk can be wound on bobbins. So some kind of re-reeling is practised by every weaving establishment which uses charkha silk. Re-reeling as an organized and systematic industry does not exist in Mysore.

46. We believe that the Indian demand for silk is capable of absorbing at least four times the present Indian production.

The total annual production of raw silk in the Mysore State is at present about 520,000 lbs.

48. Our main objective at present should be fully to meet the entire Indian demand. Till this is done, there can be no question of *export*. Of course, if silk is required abroad for Imperial needs, it will be reeled to specifications.

A Conditioning House is very essential for the silk trade, whether such trade is internal or external, since every market requires and values an authoritative assurance of quality based on carefully carried out and standardised tests. The value of the assurance depends on the prestige and competence, and disinterestedness of the authority responsible for the Conditioning House. It is therefore absolutely necessary that the Conditioning House should be established by Government either of the State or Province. A system of Conditioning Houses, organized on an all-India basis, should be the ultimate ideal for the Indian Sericultural Industry as a whole.

51. Facilities have not been provided for sorting and grading. The sorting and grading required will have to be on (a) colour, (b) State or Province of production, with a cross-classification based on Conditioning Houses. In course of time, the trade will recognize broad classifications based on place of production *cum* quality.

54. The best grades of Japanese and Chinese steam filature silks compete with Indian filature silks.

The second and lower grade of foreign filature silks as well as Chinese re-reeled silks compete with Indian charkha silk. There is no bulk supply of re-reeled charkha silk because re-reeling has neither been standardised, nor is it practised as an organized industry.

Owing to the very attractive prices at which thrown foreign silk is available, handloom weavers prefer to purchase this silk. Throwsters themselves prefer foreign silk, both because it is easy to work, and because it is more in demand owing to cheapness. If for any reason, the price of foreign silk rises, there is immediate demand for charkha silk. As a rule, the handloom weaver's choice is first of all governed by cheapness and next by ease in working, which increases the production per loom per day.

55. We do not think that artificial silk (rayon) displaces Indian silk. There is no doubt that artificial silk is growing rapidly in demand, but that is because it is gaining popularity with the poorer classes of consumers. These were not formerly consumers of silk; so there is no displacement of silk. The great and increasing vogue of artificial silk points to the desirability of starting manufacture of this textile in India—but has no direct or at any rate no important bearing on the protection of Indian silk. The two textiles appeal to different classes of consumers, and do not come into serious competition.

56. We believe that Japanese silk is being sold in India at prices which are below the cost of production in Japan. It is also exported to India at prices lower than those at which it is exported to other markets.

The following authoritative figures show the Japanese exports of silk (qualities and prices) to the various countries in 1935.

Exported to	100 Kin.	Value in 1,000 Yen.	Average cost per bale 1935 Yen.
All countries (total)	553,156	387,032	700
United States	466,576	328,911	706
Canada	120	70	583
Franco	34,792	23,765	681
Great Britain	28,433	21,451	755
British India	13,632	5,533	406
Australia	5,081	4,233	830
Switzerland	380	264	694
Italy	165	130	788
Other countries	3,977	2,675	673

The average price *ex-duty* in India works out to Rs. 2-14-6 per lb. where as we have reliable information that the cost of production in Japan that year (1935) was more than Rs. 6. In 1934, when the cost of production in Japan was Rs. 6-5 per lb., the average *ex-duty* price of Japanese imported silk was Rs. 3-9-2.

In 1937, Japan produced silk at an average cost of Rs. 5-15-9 and exported it to India at Rs. 4-3-7.

The following tabular statement shows the position at a glance and needs no comment:—

Year.	Cost price per lb. in Japan.	Ex-duty price in India.
	Rs. A. P.	Rs. A. P.
1935	6 0 0	2 14 6
1936	6 5 0	3 9 2
1937	5 15 9	4 3 7

The Japanese Government, having taken over 112,000 bales (14,896,000 lbs.) of silk in 1929-30 to relieve its sericulturists, is releasing portions of this quantity to India. The efforts of Japan to find a new field for dumping this accumulated old stock can be seen rather clearly in the vast increase of Japanese exports to India at lethal prices. In 1934, negotiations were in progress between the Japanese Government and enterprising firms of exporters, to hand over the accumulated stock held by Government for export to India.

Our information is obtained from Silk and Rayon Digest, which is a publication of the highest standing in the textile world, and from private and confidential sources of undoubted authenticity.

57. The imported raw silk is inferior to Mysore raw silk in lustre, tensile strength and elasticity. As the imported raw silk is mainly filature reeled, it is superior to Mysore silk (which is mostly charkha reeled) in winding quality, cleanness and uniformity. In regard to loss in degumming the advantage is with imported silk. The difference in price between foreign and Mysore silk is not to be explained by these differences, for the advantages and disadvantages at present about balance one another. If all Indian silk is filature reeled, then the inherent superiority of Indian silk might secure for it a slight advantage in price—it is difficult to say how much.

58. The principal dumping has been from Japan. The average exchange since dumping began is given below:—

Year.	Yen.	Rs.
1934	100	78.71
1935	„	77.78
1936	„	77.48
1937	„	77.43

We do not consider that exchange fluctuations have had any great influence. It is deliberate dumping, pure and simple.

61. 60 to 70 per cent.

65. It is our belief that all the machinery required for a filature can be manufactured in India without loss of efficiency. It is probable that the cost of machinery made in India will be about a third less than that of foreign machinery.

68. We have no fault to find with the present classification. In regard to tariff valuation, we have expressed our opinion in our memorandum which may kindly be taken to supplement this answer. We think it is unsatisfactory both because the period is too long and because it is based on unreliable information and gives scope for evasion of protection.

69. We consider that the protection should be given in the form of a protective duty fixed by an accepted formula based on (A) cost of production of Indian filature silk, (B) *ex-duty* price of imported silk and (C) exchange fluctuation. The formula we contemplate is A minus B plus (or minus) C.

An alternative would be a specific protective duty of Rs. 3-14-5 per lb. or 100 per cent. whichever is greater.

We submit that it should be given for at least 10 years to give time for the fructification of measures which are being adopted for technical and economic improvement of the industry.

It would speed up this improvement if a portion of the revenue derived from the protective duty were devoted to research and propaganda calculated to improve the technique of the industry, and carry the improved technique into industrial practice.

70. These proposals would not exercise any injurious effect on the weaving industries if the protective duty on raw silk were supplemented by, or co-ordinated with, a duty of corresponding pitch in protection of silk fabrics. In fact an interdependent and closely associated sericulture and silk weaving industry would be mutually protective and reciprocally strengthening. If Indian Sericulture is allowed to be killed, the Indian silk weaving industry could be easily killed by the same hand, either by starvation of raw material or by competition or by a combination of both methods. Silk throwing, silk dyeing and a number of small industries connected with sericulture would also die.

72. We do not think that the protection granted in 1934 has fulfilled its object, because it was so low in pitch that it was no real protection, and (this is an independent reason) because also the time fixed was too short for effecting the required improvements.

74. We think the cost can be reduced (1) by better races of silkworms and more economical production of mulberry leaves. We expect that it will be possible to reduce the cost of production to about As. 2-9 per lb. The cocoons will also be of better reeling quality—probably yielding a renditta of 14 or thereabouts. (2) By perfection of filature organization and technique. This may mean reduction of reeling costs by 40 per cent.

State aid in research, in establishment of grainages and of conditioning houses would be a powerful factor.

(2) Letter No. 29, dated the 22nd July, 1938, from the Chairman, the Mysore Silk Filatures, Limited, Bangalore.

I enclose herewith six copies of the annexure to the memorandum sent yesterday. The annexure (estimate of cost of a filature of 200 basins) may be read as part of the memorandum.

The figure for cost of production of 1 lb. of silk in a filature of 200 basins has been given in the memorandum as Rs. 7-0-8. This may be altered to Rs. 7-0-6.

Estimated cost of a 200 Basins Filature.

	Rs.	Rs.
I. Buildings and site—		
Site	4,000	
Factory building	50,000	
Stores and godowns	6,000	
Water supply	15,000	
Office, laboratory	10,000	
		85,000
II. Machinery (Tentative estimate)—		
Basins	40,000	
Japanese Cooking Machine	6,000	
Stifling	4,000	
Boilers	4,000	
Steam connections and erection	4,000	
Motors	3,000	
Workshop	2,000	
Scientific appliances	3,000	
Miscellaneous equipment (stools, tubs, wheel barrows)	2,000	
Lorries	7,000	
		75,000
Fixed capital		1,60,000
Manufacturing cost—		
1. Cost of cocoons, ronditta 16, price of cocoons As. 5, daily output of silk per basin 1.25 lbs.	3,75,000	
2. Transport, stifling, etc., at 6 pies	37,500	
3. Labour (reelers, cookers and knotters)	45,000	
4. Supervision	23,750	
5. Power and lighting (including pumping water)	5,000	
6. Fuel	15,000	
7. Miscellaneous	1,200	
8. Selling expenses	2,400	
		5,04,850

	Rs.	Rs.
Overheads—		
Depreciation—		
1. Building at 2½ per cent. on Rs. 80,000	2,125	
2. Plant at 5 per cent. on Rs. 68,000	3,400	
3. Motor vans at 25 per cent. on Rs. 7,000	1,750	
Interest at 8 per cent. on Capital expenditure on Rs. 1,60,000	12,800	
Interest at 8 per cent. on Working Capital on Rs. 1,30,000	10,400	
Total overhead (factory)	30,475	
Add Central Office overhead	18,420	
Grand total of overhead		48,895
		or
		50,000
		(approximately).
Manufacturing cost	5,04,850	
Overhead	48,896	
Total	5,53,745	
Deduct realization from waste	26,250	
Cost of production of 75,000 lbs.	5,27,495	

Therefore cost per pound will be Rs. 7-0-6.

(3) *Letter from N. Rama Rao, Esq., the Chairman, Mysore Silk Filatures, Limited, dated the 1st September, 1938.*

I have the honour to send herewith a supplementary memorandum furnishing certain details relating to our estimate of cost of production in a 200 basins filature, on the assumption of a price of As. 5 per lb. of cocoons.

Supplementary Memorandum submitted by the Mysore Silk Filatures, Limited.

In the course of my evidence before the Tariff Board on the 10th instant I was asked to submit an additional memorandum, furnishing details of Rs. 45,000 provided for labour in the estimate annexed to our memorandum, and also the details of the overhead charges of Rs. 48,895. From the form of the question, it seemed that there was a misapprehension that the whole of the figure of Rs. 48,895 was expenditure on the Central Office.

In compliance with the above request, I submit the following additional memorandum.

The "Overhead" of Rs. 48,895 does not consist entirely of Central Office charges as assumed in the question.

The Central Office charges are only Rs. 18,420, for an organisation which is expected to be sufficient for starting four filatures ultimately. The heads of expenditure consist of:—

	Per month.
	Rs.
Remuneration of Managing Agents	400
Honorarium of Industrial Adviser	150
Conveyance allowance of Industrial Adviser	50
Salaries of Staff	500
House rent, conveyance and miscellaneous	185
Travelling allowance and sitting fees of Directors	250
Total	1,535

i.e., Rs. 18,420 per annum.

Not all this expenditure is being incurred at present. Expenditure will only be incurred according to actual requirements as work develops.

The remaining part of overhead, viz., Rs. 30,475 consists of the following items:—

	Rs.
1. Depreciation on Building at 2½ per cent.	2,125
2. Depreciation on Plant at 5 per cent.	3,400
3. Depreciation on Motor vans at 25 per cent.	1,750
4. Interest on Capital (Rs. 2,90,000) at 8 per cent.	23,200
Total	30,475

The details of Rs. 45,000 for labour in the memorandum estimate are given below:—

	Rs.
220 Reelers at Rs. 12 per month (Rs. 2,640)	31,680
110 Cookers at Rs. 6 per month (Rs. 660)	7,920
40 Knotters at Rs. 5 per month (Rs. 200)	2,400
2 Boiler men at Rs. 30 and Rs. 20 (Rs. 50)	600
12 Fuel and cocoon coolies at Rs. 12 (Rs. 144)	1,728
2 Mechanics at Rs. 30 and Rs. 20 (Rs. 50)	600
Total	44,928
	or
	45,000 roughly

31. Mysore Spun Silk Mills, Limited, Channapatna.

(1) Letter No. 39-B. A., dated the 27th July, 1933, from the Mysore Spun Silk Mills, Limited, Channapatna.

I have the honour to forward herewith a set of replies to questions 29 to 30 of the General Questionnaire issued by the Tariff Board regarding the Sericultural Industry in India.

Memorandum of the Spun Silk Industry in Mysore.

1. The question of establishment of a Spun Silk Mills with a view to find a profitable market for the waste produced in the State and thereby enable the cost of production of Mysore silk being reduced to some extent had been engaging the attention of the Government of Mysore since 1928.

2. In 1930, samples of Mysore charkha and filature silk wastes were sent to Japan for conversion to yarn; and the results were found to be satisfactory. Owing, however, to the depression in the silk industry and the impossibility of competing with the imported foreign yarn with the prevalent prices thereof, the matter was allowed to lie over for a time. Meanwhile, the Tariff Board appointed by the Government of India to report on the silk industry went into the question of the chances of the successful manufacture of spun yarn in India and expressed the following opinion in the matter. (*Vide* paragraph 116 of their Report.)

"116. We are not in a position under our terms of reference to discuss the future of the spun silk industry, but from the facts that have been placed before us there is no doubt that there is no inherent disability in manufacturing spun silk in India since all the requisites of successful production are present. When such manufacture is started whether with or without the help of protection a growing home market will be found for the silk waste which is at present exported out of India. We have already pointed out the intimate connection which exists between the price of silk waste and the prosperity of the raw silk industry. If the price of this by-product improves, it would naturally reduce the cost of production of raw silk. The extent of the Indian market for silk waste may be estimated not only by the quantity of spun silk imported but also by the imports of goods made out of it."

3. Encouraged by the above observations of the Tariff Board, the Government of Mysore as also the Mysore Silk Association took up the matter again; and, in 1935, had samples of Mysore silk wastes sent to England for further examination with the result that the spun yarn manufactured therefrom was found in all respects to be equal to imported spun yarn if not superior and that the yield of yarn from the charkha waste was also found to be sufficiently satisfactory to justify the subject being pursued further. The question of the establishment of Spun Silk Factory was then actively taken up by the Government and the Mysore Silk Association. Quotations for the required machinery were then called for from England, Japan and other countries; and estimates prepared for the establishment of a factory. As it was found, on investigation, that in addition to the required supply of the raw material, the Mysore State possessed all other facilities for the establishment of the factory, the 'Mysore Spun Silk Mills, Limited,' was formed in May, 1936, with the patronage and support of Government. As will be seen from the prospectus of the Company, it has an authorised capital of Rs. 10 lakhs, with a present issued capital of Rs. 8½ lakhs of which 10 per cent. has been subscribed by Government who have reserved certain powers of supervision and control over the management of the Company.

4. After the Company was started and the factory work taken on hand the price of steel went up, and this and certain alterations and additions that became necessary to be made to the factory building have resulted in the capital expenditure exceeding the original estimate by nearly one lakh of rupees. Further, since the establishment of the Mills, the prices of silk waste—which for the purpose of the estimate had been taken at the then prevalent rate of about 4 annas per pound—has more than doubled. Owing to these causes, the cost of production of spun silk has considerably exceeded the original estimate, making it impossible to realise even the moderate profits anticipated at the time of the flotation of the Company. It is, therefore, necessary that if the factory is to earn any profit to whatever small extent it be and is not to work at a loss the

price of the imported yarn should be kept above the fair selling price of the yarn manufactured in the factory by the imposition of an adequate measure of import duty thereon. Otherwise, not only will the Mills suffer but the silk reeling industry would also suffer considerably for want of suitable local market for their by-product; and the very object for which the Mills were started would be completely frustrated.

The noils which must contribute to the profits of the Mills are not now subject to any protective duty and it is very necessary that there should be a protective duty against the imports of this article also, in addition to increased duty on spun yarn, as otherwise, proper prices cannot be secured for the noils produced in the factory and the Company will be greatly affected.

5. Coming to the question of the market for spun yarn in India, the subjoined figures give the amount of imports under silk yarn, noils and warps, during the past 10 years, the bulk of the imports consisting of spun silk yarn:—

Year.	Lbs.	
1927-28	1,358,170	} Spun yarn, noils and warps.
1928-29	2,046,760	
1929-30	1,958,614	
1930-31	1,424,398	
1931-32	1,710,366	
1932-33	3,010,189	} Spun yarn and noils.
1933-34	2,027,681	
1934-35	3,163,841	
1935-36	3,514,859	
1936-37	2,268,152	
1937-38	1,584,298	Spun yarn only.
	474,911	Noils only.

Besides the import of spun silk yarns and noils, goods made out of spun silk are also imported into India from foreign countries. There is thus a very large home market for spun silk yarn in India.

6. In the Mysore State itself, foreign spun yarn is imported from Bombay into Bangalore City and Doddaballapur which are the chief consuming centres. The quantities of spun silk yarn imported into Bangalore City are not separately shown from those of raw silk. The total imports of raw silk and spun silk are estimated to be about 2½ lakhs of pounds annually as valued by the City Municipality, of which about a lakh of pounds could be taken as spun silk. In Doddaballapur, the Municipality is, of late, maintaining separate accounts for the import of spun silk into that town as octrol duty is being levied thereon. The quantities of spun silk imported in that town are indicated below, showing an average of 5,500 lbs. per fortnight or about 1½ lakhs of lbs. per annum.

	Lbs.
For the fortnight ending with 15th May, 1938 .	9,680
Do. 31st May, 1938 .	8,349
Do. 15th June, 1938 .	4,180
Do. 30th June, 1938 .	5,060
Do. 15th July, 1938 .	5,720

The total consumption of spun yarn in the State is thus about 2½ lakhs of pounds per annum out of a total consumption of about 2 million pounds for the whole of India.

Noil yarns.—The Indian Sea Customs had merged this item into spun silk for some years past and before that it was merged into the general term "Silk Yarns, Noils, and Warps". As such, it is not possible to give the figures of imports of 'noil' yarn into India. But in 1937-38, the total imports are 474,919 lbs., showing that there is demand for this article in India.

7. The plant installed by the "Mysore Spun Silk Mills" has 3,000 spindles, and is capable of producing about 80,000 lbs. of spun silk—which is but a third of the quantity consumed in the Mysore State, and 60,000 lbs. of noil yarn annually. There is thus an assured market in Mysore alone for all the silk yarn produced; and the Company will be prepared to enlarge the factory output so as to meet the full requirements of Mysore but also of India to some extent if it is helped to maintain itself against foreign competition by the imposition of an adequate duty on imported spun yarns and noils.

8. *Quantum of protection.*—The spun silk enjoys at present a protective duty of only 14 annas per lb. while there is no duty at all on noils. If the manufacture of spun silk is to be undertaken successfully in India, the duty on the imported article should be made the same as that on raw silk: and this is required as much in the interests of spun silk as in that of raw silk which it may otherwise tend to displace to the serious prejudice of the silk industry in the country. As regards "noils" it is submitted that the protective duty should be not less than 10 annas per lb. if it is to prove in any way useful and effective.

9. A note on the estimated cost of production of spun silk yarn and noils in the Mysore Spun Silk Mills will be submitted separately which may be kindly treated as confidential and not intended for publication.

(2) *Letter No. 3547, dated the 29th July, 1938, from Mr. K. Shamsuddin Khan, B.A., Manager, Mysore Spun Silk Mills, Limited, Channarayana.*

I beg to enclose herewith six copies of the replies to the questionnaire pertaining to the Spun Silk Industry.

Replies to General Questionnaire of the Tariff Board.

29 & 30. The Mysore Spun Silk Mills are not at any disadvantage as compared with their competitors in respect of any of the items of cost of production referred to in question No. 29.

The cost of production of 1 lb. of Spun Silk Yarn will be as under:—

	Rs. A. P.
Cost of raw materials	1 15 5
Textile soap and stores	0 5 1
Fuel and power	0 5 1
Labour	0 10 6
Depreciation	0 7 11
Management expenses	0 6 7
Interest on capital	0 1 2
Selling expenses	0 1 2
Total	4 4 10

31. The economic unit of Spun Silk Mills is 3,000 spindles, and the Mysore Spun Silk Mills have taken into consideration this factor, while installing the plant. The present factory has 3,000 spindles, and is capable of easy expansion, when sufficient experience has been gained in the production of the Spun Silk Yarn.

33. The number of people engaged in the Mills is as follows:—

(a) Office	16
(b) Factory	227

34. The total strength of the labour employed in the Spun Silk Mills is 243.

The skilled labour forms about 90 per cent. and the remaining is unskilled. There is adequate supply of labour available in the place. The training of labour for the mills takes between 4 and 6 months according to the nature of the work. In the degumming department it takes about 3 months for one, to get full training and in the dressing department it takes generally six months to get the necessary skill for giving economic and quality production. In the preparatory department it takes about 3 to 4 months to acquire the necessary skill and in the spinning department 4 to 6 months according to the particular branch of the work.

35. Rates of wages given to the labourers are as follows:—

	Annas.
(a) Degumming department	5 to 6
(b) Dressing department	5
Filling Engines	5
Dressers	8
(c) Preparatory Department	3 „ 10
(d) Spinning Frames	3 „ 10
(e) Doubling Frames	3 „ 8
(f) Twisting Frames	3 „ 5
(g) Gassing	5 „ 8
(h) Reeling	4 „ 8

(1) Untrained labour 4 to 5.

(2) The Sericultural Industry in India is not hampered in comparison with its competitors for want of efficiency of the Indian labour. The labour in Mysore compares very favourably with the labour in China. If it suffers in respect of the amount of the work turned out individually in Japan, it is largely compensated for by the lower wages in Mysore. On the whole it may be stated that Mysore labour is efficient.

(3) For training the labour in all the branches of this work there is an experienced expert assisted by a competent spinner and other technical staff who train the labour recruited for the mills.

36. The block value of the Mysore Spun Silk Mills, as on 30th June, 1938, is as follows:—

	Rs. A. P.
(a) Leases and concessions	Nil
(b) Lands	3,536 13 0
(c) Buildings	1,43,825 3 7
(d) Plant and machinery	5,97,605 9 10
(e) Other assets	28,250 14 2

37. The following is the present day cost under the heading:—

	Rs. A. P.
(a) Buildings	1,43,824 3 7
(b) Plant and machinery	5,97,605 9 10
(c) Other costs	31,787 11 2

For erecting the plant of similar capacity to-day it costs about the same as it has cost us, because its erection and other works were completed very recently. Only there might be slight rise of about 2 to 3 per cent. in the value of the machinery owing to rise in the price of steel.

39. The working capital necessary for the mills is about 1½ lakhs. It is necessary to indicate here that the estimated working capital at the time of formation of the company was one lakh of rupees and this has to be raised now to 1½ lakhs on account of the considerable rise in the price of the raw material. It was contemplated to have the working capital secured out of the share capital of 8½ lakhs rupees of this company. As the price for steel went up after the formation of the company and as there was considerable increase in the price of raw material, the amount of capital issued was not enough. This has necessitated borrowing this money (1½ lakhs rupees working capital) from the banks. We have not so far borrowed, but we are contemplating to get a cash credit loan on a cheap rate of interest not exceeding 4 per cent. per annum.

(3) Note.

(1) This Joint Stock Company was started for utilizing the silk waste produced in the State and also in Indian Provinces. The Government of Mysore who had conducted detailed investigations regarding the spun silk industry had satisfied themselves that the factory could be successfully and profitably worked. The required raw material is available in the State and power and labour are abundant and cheap. There is a very large market for spun silk in Bangalore and Doddaballapur, not to speak of the market outside Mysore State. The factory is located in the heart of silk area.

(2) The authorised capital of this Company is Rs. 10 lakhs and the issued capital Rs. 8½ lakhs. The Government of Mysore have subscribed 10 per cent. of the shares and retained certain powers of control and audit. Three of the Directors out of nine are nominated by Government and the appointment of the Manager is subject to the approval of the Government. The Company was floated in 1936 and the last consignment of machinery ordered from England was received in April this year. The entire plant has been erected and the preliminary work of training the operatives was started this year in January. There are now about 200 operatives under training. Already small quantities of standard grade are being produced.

(3) The Mill comprises 3,000 spindles and has got the most up-to-date machinery, and has also a noil plant to utilise the by-product produced during the course of the manufacture of spun yarn. The degumming process is adopted for treating the raw material and the dressing department has got circular dressing frames of the best type possible combining both circular dressing and flat dressing systems.

(4) The plant is capable of handling three lakhs of pounds of charkha silk waste almost all of which is available in the Mysore State, besides a large quantity of pierced cocoons and throwsters' silk waste. The factory has been designed for further expansion when required for which there are excellent prospects. For training the staff and operatives the services of an experienced expert have been secured from England.

(5) When the Company was floated the cost of production of spun silk yarn was found to be competitive and a net profit of about Rs. 90,000 was anticipated. The estimates had provided for raw material at As. 4 per pound, when the market prices were only about As. 1 per pound. Since then, the conditions have considerably changed and the average prices of raw material may be taken at As. 8 per pound. This increase in the prices of raw material has reduced the calculated profits considerably. Without adequate protection it would not be possible for this Company to earn any attractive profits. Besides, the by-products, viz., the noil yarn which is the main source of profits has no protective duty. Therefore,

it is not only necessary to enhance the duty on spun silk corresponding to the increase in duty on raw silk but there should be corresponding protective duty on noils imported into India.

(6) The prospectus of the Company, Balance Sheets, and a brief note on the technical operations are enclosed herewith.*

(4) Degumming Department.

Raw material.—Charkha waste, filature waste, throwsters' waste and pierced cocoons.

Charkha waste or filature waste is placed in steeping tubs, containing hot water, and left for 3-4 days to allow the gum to soften. This material is received and treated in steeping tubs, washing machine and stampedo. The wasted material is boiled twice in Steam pan for varying periods in soap according to dirt and gum contained therein. Surplus water contained is extracted by Hydro-Extractor.

Drying room.

The degummed material is thoroughly dried by hot air process in specially constructed chambers.

Conditioning room.

The dried silk waste is stacked in the "Conditioning Room" until silk becomes supple and regains its original moisture of 11 per cent. or more. The material is weighed out into balls of convenient weight for working on the dressing machines and these balls are sent over the dressing department.

Dressing room.

The degummed waste is softened by passing it in a suppling machine. The supplied waste is opened by an opening machine (for charkha or hard waste only) and in the case of pierced cocoons, a cocoon opener is used for opening the cocoons after beating them.

Filling Engine.—Where the waste is opened out by means of pins. The waste forms a lap around the drum, and when full is cut into staple form and the staple removed on to sticks ready for the dressing machine.

Dressing Machine.

The sticks from filling engine are placed in grooves of the pressed on the large cylinder, a portion of silk projecting. This is carried around and comes into contact with the travelling combs which have a gradual combing action thereby removing all impurities and short fibres, which form on the combs. These are again removed by sticks and passed along to next machine where further fibres are taken out. Then combings from here pass to the next machine. The material receiving 4 operations of combing, and short fibres or noils removed are treated in Noil Department.

Noil Department.

Opening of waste on the two opening machines. The material is then fed into hopper passing through the three card set and on to the Condenser Bobbin. From these it is spun into yarn on the Spinning Frame.

Preparing Department.

Spreading.—Dressed drafts from the Dressing Department are laid parallel on feed sheet and passed through fallers which have a drafting and combing action. The silk forms into a lap around the drum. The lap is again run through the same machine.

* Not printed.

Sett Frame.—Laps from the above are fed up on feed sheet and joined together by pressing. The silk passing through fallers and drafter combed and is formed into sliver.

Drawing Frame.—12 ends are taken from the Sett frame and passing into machine receive a combing and drafting action, thereby drawn into one sliver. Ten of these slivers again pass through the next head and again into one. This treatment is given at each machine, the material finally passing out into a level sliver at the last head.

Gill Racer.—The sliver again here undergoes drafting and combing action and passes out in slubbing form; twist being applied and wound on the bobbin.

Roving.—Two hobbins are taken together and drawn out into one, twisted slightly and wound on to bobbins ready for spinning.

Spinning.—The roving is here drafted by means of rollers into yarn, twist being given to the yarn by the high speed of the spindles and yarn wound on to bobbin by ring travellers.

Winding.—Here two ends of single yarn are wound together on to a bobbin in readiness for twisting.

Twisting.—The two ends wound together are twisted on these machines.

Gassing and cleaning.—The yarn after passing through the preceding processes and as a result of improper dressing contains various imperfections such as knubs and slubs. These are removed by passing through a gas flame a number of times. The flame singes the loose fibres and knubs. These, by the friction they receive from the runners around which they are wrapped, are thrown off.

Controlling.—The yarn is now run between very close gauge which stops the winding bobbin should a knot or thick portion of yarn pass through.

Reeling. The yarn is here reeled into bales of any required length, pressed and baled.

(5) *Supplementary note handed in at the time of oral evidence by Mr. K. Shamsuddin Khan, Manager of the Spun Silk Mills, Limited.*

General.

There are about 10 spun silk merchants that get spun silk from Bombay to Bangalore and to Doddaballapur. Some of the firms have got their head offices in Bangalore and a branch at Doddaballapur. The spun silk that is got from Bombay into Mysore is directly imported into Doddaballapur for its consumption to avoid paying two duties, viz., one at Bangalore and the other at Doddaballapur. A duty of 2 per cent. is levied on the imported silks by the Bangalore City Municipality and a duty of Rs. 1-9 per cent. is levied on imported spun silks by the Doddaballapur Municipality. The counts that are usually got into Bangalore and Doddaballapur are 210/2. There is a very large variety of spun silk from Japan that is imported into the State. The following are the usual ones with their current prices:—

	Rs.	A.	P.	
S.S.S.	5	7	6	} (Bombay prices)
X.X.X.	5	9	0	
Horse	5	7	0	
Kanto	5	8	0	
B. Fuji	5	8	0	
X.	5	5	0	
A.A.A.	5	6	0	
Nitto Mix	4	1	9	
Star Malan	4	1	6	

Of these, the superior grades are (i) X.X.X., (ii) S.S.S., (iii) Horse and (iv) Kanto. The second grades are (i) X., (ii) A.A.A., (iii) Nitto and (iv) Star Malan. The last two are mixtures of spun silk and cotton or spun silk and staple fibre. In quality, these are not comparable to the usual Italian or English spun silks which are not being imported on account of the high prices that have to be paid for them. The spun silk so far manufactured by the Mysore Spun Silk Mills has, by competent weavers, been declared to be superior in respect of uniformity and less defective, and in colour and lustre it is at least equal, if not superior, to the imported spun silk.

Uses of Spun Silk.

In the Mysore State the spun silk is mostly used for the manufacture of "Sarees" and to a certain extent for coatings. But spun silk can be used for preparing shirtings, tapestry, and pillow coverings for high class furniture, sewing thread, embroidery, and for practically almost all the purposes for which raw silk is put excepting the highest grade fabrics such as crepe, georgette, taffeta, etc.

The noil yarn is used for coatings and for knitting purposes. Of late, in France, noil yarn is used for military purposes, and in fact, one of the Spun Silk Mills at Thizy, near Lyons, has been asked by the Military Department of France to devote its entire attention for preparing noil yarns of a particular type that are used for making ropes and such materials as noil yarn ropes and strings are used with more advantage than steel wire. But noil yarn is commonly used for making coatings and similar purposes. However, the fact that it can be used for military operations is of great significance.

Quantity of Raw Material.

	Lbs.	ozs.
(1) Filature silk waste	27,043	8
(2) Charkha silk waste	50,838	0
(3) Throwsters' silk waste	48,491	0
(4) Domestic Basin silk waste	5,243	0
(5) Mysore pierced cocoons	5,788	0
(6) Foreign pierced cocoons	2,443	0
(7) Double cocoons	2,908	0
(8) Pierced double cocoons	569	0
Total	1,43,323	8

Average prices paid.

	As. p.
(1) Filature silk waste	10 9
(2) Charkha silk waste	6 11
(3) Throwsters' silk waste	7 2
(4) Domestic basin	10 5
(5) Pierced cocoons—Mysore	14 0
(6) Pierced cocoons—Foreign	11 0
(7) Double conditioned cocoons	8 0
(8) Pierced double cocoons	14 0

(6) Letter No. 4537, dated the 14th/15th September, 1938, from the Manager, The Mysore Spun Silk Mills, Ltd., Channarayana.

During the course of the oral evidence before the Board tendered by the representatives of this Mills on Friday, the 12th August, 1938, at Bangalore, the President of the Board had requested information on certain points to be submitted later. We enclose herewith a note containing the information required by the President.

Thanking you.

NOTE.

I. The present capital cost: as on 31st August, 1938—

	Rs.	A.	P.
Lands	6,408	4	0
Buildings	1,41,223	5	8
Plant and machinery including erection	6,08,352	8	7
Other Assets	28,563	12	10
Total	7,84,547	15	1

II. Price per lb. of imported spun silk of 2/60s.—The price of 2/60s at Bombay in March, 1938, was Rs. 4-4 per lb.

The prices of 2/60s from January, 1937, are noted below:—

	Per lb. (Bombay).
	Rs. A. P.
4th January, 1937	3 1 6
4th February, 1937	3 5 6
4th March, 1937	3 6 0
5th April, 1937	3 8 6
4th May, 1937	3 10 0
4th June, 1937	3 13 0
30th November, 1937	4 4 6
14th February, 1938	3 14 0
22nd March, 1938	4 4 0

III. Particulars of wages paid—

- (1) Number of labourers getting As. 3 per day—69.
 - (2) Number of labourers getting As. 4 per day—33.
 - (3) Number of labourers getting As. 5 per day—53.
 - (4) Number of labourers getting As. 6 per day—26.
 - (5) Number of labourers getting As. 8 per day—28.
- from As. 9 to Rs. 1-4—18.

IV.—Details of " Other assets " shown under capital expenditure :—

	Rs.	A.	P.
(a) Pipe line and water supply	20,487	2	9
(b) Office furniture and equipment	3,307	6	3
(c) Library	222	6	11
(d) Beltings	4,233	14	3
Total	28,250	14	2

V.—Prices of spun silk yarn before and after the grant of protection:—

The prices of spun silk yarn prior to October 1933 are not available and have not been so far secured. The prices since October 1933 are noted below:—

—	1933.		1934.		1935.	
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
January . .	..		3 12 0 to 4 12 0		4 3 0 to 4 6 6	
February . .	..		4 4 0 to 5 6 0		4 2 6 to 4 4 6	
March . .	..		3 14 0 to 5 0 0		4 2 9 to 4 5 0	
April . .	..		3 11 0 to 4 8 0		4 1 0 to 4 4 0	
May . .	..		3 12 0 to 4 8 0		4 0 0 to 4 4 6	
June . .	..		3 11 0 to 4 6 0		3 15 6 to 4 4 0	
July . .	..		3 13 0 to 4 5 0		4 1 0 to 4 5 3	
August . .	..		4 0 0 to 4 5 0		4 1 9 to 4 3 0	
September . .	..		4 0 0 to 4 5 0		4 8 0 to 4 12 0	
October . .	3 13 0 to 4 8 0		4 0 0 to 4 2 6		4 13 0 to 4 15 0	
November . .	3 10 0 to 4 4 0		4 1 0 to 4 2 6		4 7 0 to 4 9 6	
December . .	3 8 0 to 4 8 0		4 4 0 to 4 7 6		3 15 6 to 4 4 0	

—	1936.		1937.		1938.	
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
January . .	3 10 0 to 4 6 0		4 3 0 to 4 11 0		4 1 9 to 4 14 6	
February . .	3 13 0 to 4 5 6		4 2 3 to 4 10 0		3 15 9 to 4 18 6	
March . .	3 14 0 to 4 7 0		4 5 0 to 4 11 9		3 15 0 to 4 14 6	
April . .	3 14 0 to 4 12 0		3 14 6 to 4 13 6		3 14 6 to 4 15 0	
May . .	4 2 0 to 4 11 0		3 13 6 to 4 14 0		3 15 6 to 5 2 0	
June . .	3 14 0 to 4 9 6		3 15 6 to 4 15 0		4 0 9 to 5 2 6	
July . .	3 13 0 to 4 11 0		4 1 0 to 5 2 0		3 15 0 to 5 7 0	
August . .	3 12 0 to 4 9 6		4 7 0 to 5 8 0		4 7 0 to 6 0 0	
September . .	4 0 0 to 4 9 6		4 8 0 to 5 8 0		..	
October . .	4 1 0 to 4 9 6		4 6 0 to 5 7 0		..	
November . .	4 3 0 to 4 10 6		4 1 0 to 4 14 0		..	
December . .	4 2 6 to 4 9 0		4 3 0 to 4 15 0		..	

32. Silk Throwing Factory, Mamballi, Yelandur Taluk, Mysore.

Letter No. 126, dated the 25th July, 1938, from the Superintendent of Sericulture in Mysore.

I have the honour to enclose herewith five copies of the replies received from Mr. Basavaanna Devaru, Mamballi, Yelandur Taluk, to the questions relating to Silk Throwing in the General Questionnaire on the Silk Industry issued by the India Tariff Board.

Silk Throwing Factory, Mamballi.

Answers to the General Questionnaire issued by the Indian Tariff Board on the Sericultural Industry:—

29. (a) Total works expenditure upon silk throwing for each of the last five years—

Particulars	1933-34.	1934-35.	1935-35.	1936-37.	1937-38.
	Rs.	Rs.	Rs.	Rs.	Rs.
1. Raw silk . . .	20,000	28,500	38,500	45,000	50,000
2. Labour . . .	2,000	2,500	2,500	2,500	2,500
3. Supervision and Management . .	1,800	2,000	2,000	2,000	2,000
4. Fuel, oil, etc. . .	1,200	1,500	1,650	1,800	1,800
5. Repairs and other charges . . .	200	250	400	500	600
6. Selling and travelling expenses . . .	300	400	500	600	675
Total . . .	25,500	35,150	45,550	52,400	57,750
Deduct cost of waste . . .	50	40	40	120	120
	25,450	35,110	45,510	52,280	57,630

(b) Work cost of "throwing" one pound of raw silk:—

Particulars.	1933-34.	1934-35.	1935-35.	1936-37.	1937-38.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1. Raw Material . .	4 3 4.5	4 9 8.5	5 0 0	4 13 10	4 14 0.6
2. Labour . . .	0 6 8.84	0 6 5.4	0 5 2.4	0 4 10	0 3 10.5
3. Supervision and Management . .	0 6 0.75	0 5 2	0 4 2	0 3 6.5	0 3 5.2
4. Fuel, Oil etc. . .	0 4 0.5	0 3 10.5	0 3 5.1	0 3 1.4	0 2 4
5. Repairs and other charges . .	0 0 8	0 0 7.75	0 0 10	0 0 10.4	0 0 10.7
6. Selling expenses . .	0 1 1	0 1 0.5	0 0 0.5	0 1 0.5	0 1 0.6
Total . . .	5 5 11.6	5 10 10.65	5 14 8	5 11 1.8	5 9 7.6

30. We are not aware of the condition of foreign countries.

31. The size of plant depends upon the demand for twisted yarn. Our unit consists of 960 spindles.

32. The maximum capacity of the present plant is about 15,000 lbs. per year—

(a) The actual output of twisted yarn for each of the last five years is given below:—

Year.	Twisted yarn.	Waste.
	Lbs.	Lbs.
1933-34	4,500	250
1934-35	6,000	200
1935-36	7,500	200
1936-37	9,000	250
1937-38	10,000	250

33. No. of people working in each branch of the concern are:—

	1933-34.	1937-38.
Twisting	10	12
Winding	10	12
Doubling	6	8
Reeling	6	8

34. The total strength of the labour employed is 40. All of them are skilled labourers and there is no dearth for skilled labour. It takes about 2 months for a novice to acquire the minimum skill necessary.

35. (1) Rates of labour paid for each item of work is:—

	Rs.	Rs. A.
Twisting	7	to 7 8
Winding	5	„ 6 0
Reeling	5	„ 5 8
Doubling	6	„ 7 8

(2) Our work is not at all hampered for want of efficient labour. The labour employed is quite efficient and can skilfully handle any modern throwing spindle.

(3) Apprentices are taken for training in the factory and are given a small labour during the period of training. When they are found fit, they will be employed as regular labourers and are paid normal wages.

36. Block value of the factory as it stands at present:—

	Rs.
(a) Lands and buildings	7,000
(b) Plant and machinery	27,000
(c) Other assets—raw material	32,000
Twisted yarn, etc., total	66,000

37. Present cost of erecting machinery of the capacity as that of our own is noted below:—

	Rs.
(a) Land and buildings	8,000
(b) Plant and machinery	35,000
(c) Other costs—raw material, etc.	40,000
Total	83,000

38. The plant and machinery have been depreciated at 5 per cent. and land and buildings at 2½ per cent. per annum. The total amount written off is Rs. 9,000. No reserve fund has been created so far.

39. The working capital required for a throwing factory of the capacity above-mentioned is Rs. 45,000. The capital invested in our factory is our own and the interest may be calculated at 9 per cent.

33. Bangalore Silk Filatures, Bangalore.

- (1) *Letter from the Tariff Board to F. L. Silva, Esquire, Bangalore Silk Filatures, Ulsoor Gate, Bangalore City, No. 850, dated the 11th August, 1938.*

I am directed by the Tariff Board to ask you kindly to furnish as early as possible replies to Questions Nos. 29 to 39 of the General Questionnaire of the Board in respect of your Throwing Mill at Bangalore.

- (2) *Letter from R. Silva, Esq., the Bangalore Silk Filature and Throwing Mill, Ulsoor Gate, Bangalore City, dated the 13th August, 1938.*

I am writing to acknowledge receipt of your letter No. 850 of the 11th instant in the absence of my father who has proceeded on tour to Bombay and elsewhere.

The question of replying to that part of the Questionnaire relating to Throwing Mills was very anxiously considered by us, especially as the President had mentioned to him at Mysore that he expected our reply. But the conclusion we arrived at was that as our Throwing Mill differs from others in certain respects, our results would serve to mislead rather than guide the Board in arriving at a true conclusion.

In our Throwing Mill we have been dealing with our own raw silk. Sometimes we work with finished raw silk such as we place on the market; but at other times we deal with unexamined raw silk or damaged silk. In such cases we do not keep accurate accounts of each lot. Again we charge the value of raw silk to our mill at cost price and not the market price. Until very recently it was not necessary for us to distinguish strictly between the expenditure on the Filature and the Throwing Mill and the marketing also used to be done jointly. Further unlike other Throwing Mills we confined our work largely to organzino and turned out very little tram as our silk was chiefly in demand for warp.

For these reasons and because there were so many other Throwing Mills to submit their returns my father decided not to submit a reply in respect of Throwing Mills.

Will you very kindly explain the matter with our sincere apologies?

34. Importers and Traders in Mysore.

- (1) *Letter from the Director of Industries and Commerce in Mysore, Bangalore, No. CL 412/37-38, dated the 24th July, 1938.*

In continuation of my letter of the same No., dated the 22nd July, 1938, forwarding replies to the questionnaire about the handloom industry with six spare copies, I have the honour to forward herewith, in original, replies received from the following concerns at Bangalore to the questionnaire for importers and traders:—

- (1) Messrs. Khoday Eshwarsa, 38, Santhusapet, Bangalore City.
- (2) Messrs. B. Devaiah Sotty & Sons, Silk Koti, Doddapet, Bangalore City.

- (3) Messrs. Maradi Subbiah & Sons, Avenue Road, Bangalore City.
 (4) Messrs. Lakshmana Rao & Son, Silk Merchants, 125, Balepet, Bangalore City.
 (5) Messrs. M. Srinivasa & Co., Silk Merchants, Santhosapet, Bangalore City.

Enclosure 1.

Answers to Questionnaire for Importers and Traders

1. China and Japan compete with Indian silks. Mysore, Bengal and Kashmir silks (all Indian silks) are facing the keenest competition in all the Indian markets.

3. Mysore filature silk priced in Bangalore between Rs. 6 to Rs. 6-4 per lb., Kashmir filature silks priced between Rs. 5-12 to Rs. 5-14, Bengal silks, and Mysore hand-reeled silks varying in price from Rs. 3-8 per lb. to Rs. 5-6 per lb. have to stand in competition with imported silks.

5. Foreign silks for our consumption are had from Madras and Bombay and for a bale of silk weighing gross about 1½ maunds, the parcel railway charges amount to Rs. 11 from Bombay and Rs. 5 per bale from Madras to Bangalore. Our chief markets where our products are consumed, are mentioned with railway charges to be paid per maund. Cudapah Rs. 3-3, Belgaum Rs. 3-15, Satara Rs. 5-1, Poona Rs. 6-2, Bombay Rs. 6-9, Yecola Rs. 6-12, Ahmednagar Rs. 5-11, Benares Rs. 12-6, Calcutta Rs. 10-3, Bezwada Rs. 4-6.

6. Foreign producers sell their silks at unremunerative prices.

7. Indian silks, especially, filature silks, though equal in quality to foreign silks, possess more shining and are more tenacious. It is charka (hand-reeled) silks that are sold at lower rates, i.e., coarse silks of third grade. Filature silks, costs of production of which, go higher than hand-reeled silks, have to be sold in competition with foreign silks.

12. Hand-reeled silk has certainly been replaced, by artificial silk and this is due to its very cheap prices.

16. The quality of imported silks has been the same without any change.

17. Silk importers, sell to retailers, who in their turn sell to weavers.

18. The imported thrown silk is sold (i.e., organzine silk) at Bangalore at Rs. 7 per lb., Mysore filature organzine at Rs. 7-6 per lb. and Kashmir filature organzine at Rs. 7-4 per lb.

19. Staple fibre is used in many instances by the powerloom weavers with silk goods such as spun silk sarrees to cheapen the cost. It is imported from Japan.

20. Staple fibre goods on account of their cheap price tempts the buying public who were hitherto using silks alone.

21. (i) Winding and twisting is done both by people of the cottage industry and also by the aid of machinery, for the weavers.

(ii) & (iii) Majorly done by silk-dyeing concerns, and in very rare cases, the weaver himself does that.

(iv) Doubling and warping are done by the weavers.

23. Spun silk is mainly used for the manufacture of sarrees, coatings, shirtings, etc., under the name of "spun silk goods".

24. Both Indian and foreign silks should be conditioned and certificates issued, so that weavers may study the qualities of both the kinds of silks and select the best.

27. It is certainly a fact that artificial silk has replaced raw silk to a very great extent owing to the extreme cheapness of its price and the position has not at all improved.


28. Same duty as on raw silks, have also to be imposed on foreign spun silks.

29. Probably Japan might have lost other markets and so they are finding new markets for these products and India is one of them.

31. Yes.

32. Cottage industry of silk-throwing has been completely ousted out by the imports of foreign thrown silks which are priced very cheap and have a difference of only As. 12 to Re. 1 per lb. over the price of raw silk. Before the import of foreign thrown silks, major people of each of the silk-weaving centres, were dependant upon the cottage industry of silk-throwing and they were paid Rs. 2 to Rs. 2-4 for twisting (by hand) one pound of organzine silk, and now such imported (foreign) thrown silks, are being sold at a difference of As. 12 to Re. 1 per lb., over the price of raw silk. So none get produced thrown silks by hand paying extra charges (to add to which the imported thrown silks are made by machinery). This means the protection on thrown silks is not adequate and there should be additional duties levied on them apart from the existing duties, i.e., present duties, plus additional duties not less than Rs. 2 to Rs. 2-4 per lb., classifying thrown silks separately from raw silks.

33. A spun silk factory* at Channapatna and a joint stock company at T. Narsipur are being floated for reeling raw silks.


KHODAY ESIHWARS,
Dealers in Swadeshi Silk and Gold Thread,
32, Santhosapet, Bangalore City.

Enclosure 2.

1. Japan and China silks are competing with the Indian silks mostly Japan has taken part in competing with all kinds of silks.

2. At present Kashmir flature at Rs. 5-12 to Rs. 5-14 per lb., Mysore flature at Rs. 6-2 to Rs. 6-4 per lb. and Mysore hand-reeled Rs. 3-8 to Rs. 5-4 per lb.

3. Formerly the foreign countries were not sending too much of silks to Indian markets and only Indian silks were used. Now they have begun to export huge quantities to India competing in rate. Due to such reasons the rates have gone down. There is protection for silk industry by Japan Government to ryots and firms.

4. Railway fare from Madras to Bangalore City Rs. 3-8 per maund. Bombay to Bangalore City Rs. 6-8 per maund.

11. Raw silk and thrown silk must be classified separately for the purpose of tariff valuation, and duties must be levied on thrown silk since very large quantities of this silk are being imported from Japan at a cheaper rate, thereby weakening the market for twisted silks.

12. Yes.

16. Formerly when the rates were high the silk of Japan was also superior. By the reduction of rates the silk also has been reduced in all its respects.

17. The weavers get raw silk, coloured silk, twisted silk from merchants and retailers.

18. We mostly import from Bombay, Madras, Calcutta.

21. The operations will be done according to the convenience of the weavers.

22. For warps.—Organzine, Godduri, Single thread twist silk are used.

* Started.

For wefts.—Tram from 3 to 10 ends and also organzine and Goddard are used.

27. The position remains the same to-day.

B. DEVAIAH SETTY & SONS,
Silk Koti, Bangalore.
23rd July, 1938.

Enclosure 3.

1. The foreign countries compete with the Indian silk are Japan and China. Mostly Japan competes with all kinds of Indian silks. Both Japan and China are sold throughout all markets in India. Japan competes especially with filature silk and yarn.

4. There is a large difference in the price of imported silks as competitive with Indian silks. Foreign silks are cheaper than Indian silks. India Government has not levied sufficient duties on foreign silks. The Government has not given sufficient protection and does not encourage Indian Silk Industry which is one of the Chief Home Industry in India.

7. Indian silks are far better than any other foreign silks. We can get better texture, shining, durability than any other foreign silks. But we could not get Indian silks at lower prices than foreign silks as the cost of the manufacture is comparatively greater. So the price is the chief reason for the decline of the Indian silks. Therefore the Government of India should and must give more protection and safeguard to Indian silks. All Governments in India should give loans and establish Co-operative Societies and Banks in the villages to help the silk-growers in India. The Government of India should establish a Central Institute or a Laboratory for examining foreign and native cocoons. The result should be reporting every now and then and the students of the Institute or Laboratory should be sent to the villages where there is much silk crops. They should be strictly ordered to help the silk-growers and explain the defects and advantages of their invention in the Institute or the Laboratory. The Filature Silk Mills should be established in the Silk Centres.

16. There are so many qualities in foreign silks. We may get any quality we like. We were getting better silk when we were paying more price for the silk. But now we get the quality according to the price.

17. Some will sell direct to the weavers. Some will sell through their agents and retailers.

18. They obtain their raw materials in the market. Some of them made by the local makers. Now the weavers use the foreign silks and yarns for weaving. But at first they were using hand-reeled silk which they were getting at higher rates.

21. At first the weavers generally were performing their own twisting, winding, dyeing, doubling and warpings by their own machines.

22. All kinds of silks are used for warp and weft. They use organzine for warp and tram for weft. Kashmir for warp Japan for weft. Japan for both warp and weft. Japan for warp and China for weft are used.

23. Spun silk is used for sarrees, dhoties, dupatas, coatings, shirtings and suitings, etc.

28. The present duty is not sufficient. So the duty should be levied at least cent per cent. for all foreign goods and especially silks.

29. Because Japan has got good demand for silk in India, she has got much demand. She also supplies the silks at competitive rates. So she has got too much demand for her silks in India.

MARADI SUBBIAH & SONS,
23rd July, 1938.

Enclosure 4.

1. Chinese and Japanese silks are competing with Indian silks such as Mysore, Bengal and Kashmir silks and there has been a keen competition and in places where Indian silks were used, Chinese and Japanese silks have occupied their place by capturing the market.

3. Mysore filature silks are sold from Rs. 6 to Rs. 6-4 per lb. and Kashmir filature silks are sold from Rs. 5-10 to Rs. 5-12 in Bangalore market. Bengal and Mysore hand-reeled silks are sold from Rs. 3-8 to Rs. 5-4 per lb. and these silks have to face the competition of the foreign silks.

5. Foreign silks are imported from Madras and Bombay and the cost of Railway freight per bale of 1½ maunds will be Rs. 11 from Bombay to Bangalore. In markets where our products are sold, the cost of Railway freight will be Rs. 3-3 from Bangalore to Kadapa, Rs. 3-15 to Belgaum, Rs. 5-4 to Satara, Rs. 6-2 to Poona, Rs. 6-9 to Bombay, Rs. 5-11 to Ahmednagar, Rs. 12-6 to Bonares and Rs. 10-3 to Calcutta.

6. Foreign producers are selling their silks at unremunerative prices and it is their idea, perhaps, to kill the sericultural industries of other countries by making a cut-throat competition and after capturing all the markets, they may be in a position to quote their own prices and thereby make huge profits.

7. Yes. Indian silk is much better in quality and lustre and it has got a good tenacity. The charka hand-reeled silks, though they are sold at lower rates, are not able to withstand the competition of Chinese silks since they are filature silks and competitive in prices and could be twisted on twisting plants, easily than the hand-reeled silks. Our Mysore filatures have to compete with foreign filatures. Mysore filatures are sold at Rs. 6 and Rs. 6-4, whereas the Chinese and Japanese filatures are sold at Rs. 4-4 and Rs. 5-4. Consumers have therefore resorted to the purchase of these silks than to our silks, on account of their cheapness. If Chinese and Japanese silks are made to sell at Rs. 6-12 and Rs. 6-14 then, there will be a demand for our filature silks. Consumers would prefer to encourage Indian silks in preference to foreign silks since they have all the required qualities in them.

10. Indian silk especially, the Mysore silk was giving food to 10 lakhs of people and yielding an income of 1 crore of rupees. Such an industry is in a dyeing condition on account of the keen competition of foreign silks. There has been no proper return for the growers of mulberry leaves and silkworms. 75 per cent. of the industry is extinguished and there barely remains 25 per cent. surviving. Four years back, the Tariff Board recommended to the Government of India, to levy an *ad valorem* duty of 30 per cent. The Chinese people reduced the price of silks by 40 per cent. Before the levy of Tariff duties, the price of country silks were Rs. 4-8 to Rs. 6 and filature silks were Rs. 7 to Rs. 7-8. Now the present prices of country silks, are from Rs. 3-8 to Rs. 5 and that of filatures from Rs. 6 to Rs. 6-4. Unless a strong Tariff protection is given there is no hope for our Sericultural Industry to revive and I am of opinion that the industry will altogether extinct.

16. The quality of the foreign silks has been the same throughout and there has been no change.

27. It is certainly a fact that artificial silk has replaced raw silk to a large extent owing to its cheapness in price and the position has not at all improved.

28. The same duty as on raw silks have to be imposed on foreign and spun and twisted silks.

29. The Americans and other people were purchasing the Japanese silks and of late they are not purchasing. Since three years, the Japanese people have captured the Indian market and they have ousted out even

Chinese silks from the Indian market and they may probably do so with regard to Indian silks, if no proper duties are levied and thereby the interests of the Indian silk safeguarded.

32. The weavers in Bangalore, Doddballapur, Dharmavaram, Molkalmuru, Gadag, Bagalkot, Hubli, Belgaum, Conjeevaram, Salem, Kumbakonam and Madura were using Indian silks and many were living upon this industry. The foreign silks have captured these markets and since these silks are twisted on twisting plants people who were living on hand-reeled and hand-twisting have now no means to live. So, it is earnestly requested that a proper tariff duty be levied on imported raw and twisted foreign silks and thereby save the Indian industry which has been a source of living for lakhs and earn the gratitude of the teeming millions.

T. LAKSHMANA RAO & SON.

24th July, 1938.

Enclosure 5.

From Messrs. M. Srinivasa & Co., Silk Merchants, 23, SanthusaPet, Bangalore City.

1. China and Japan compete with Indian silks. Mysore, Bengal and Kashmir silks (all Indian silks) are facing the keenest competition in all the Indian markets.

4. Mysore filature silk priced at Bangalore between Rs. 6 to Rs. 6-4 per lb. Kashmir filature silks priced between Rs. 5-12 to Rs. 5-14, Bengal silks and Mysore hand-reeled silks varying in price from Rs. 8-8 per lb. to Rs. 5-6 per lb. have to stand in competition with imported silks.

5. Foreign silks for our consumption are had from Madras and Bombay and for a bale of silk weighing gross about 14 maunds, the parcel railway charges amount to Rs. 11 from Bombay and Rs. 5 per bale from Madras to Bangalore. Our chief markets where our products are consumed are mentioned with railway charges to be paid per maund. Cudapah Rs. 3-3, Belgaum Rs. 3-15, Satara Rs. 5-4, Poona Rs. 6-2, Bombay Rs. 6-9, Yeola Rs. 6-12, Ahmednagar Rs. 5-11, Bompes Rs. 12-6, Calcutta Rs. 10-3, Bezwada Rs. 4-6.

6. Foreign producers sell their silks at unremunerative prices.

7. Indian silks especially, filature silks, though equal in quality to foreign silks, possess more shining and more tenacious. It is charka (hand-reeled) silks that are sold at lower rates, i.e., coarse silks of third grade, filature silks costs of production of which go higher than hand-reeled silks, have to be sold in competition with foreign silks.

12. Hand-reeled silks has certainly been replaced by artificial silks and this is due to its very cheap prices.

16. The quality of imported silks has been the same without any change.

17. Silk imports sell to retailers who in their turn sell to weavers.

18. The imported thrown silk is sold (i.e., organzine silk) at Bangalore at Rs. 7 per lb. Mysore filature organzine at Rs. 7-6 per lb. and Kashmir filature organzine at Rs. 7-4 per lb.

19. Staple fibre is used by the power loom factories in many instances with silk goods such as spun silk sarrees to cheapen the cost. It is imported from Japan.

20. Staple fibre goods on account of their cheap price tempts the buying public who were hitherto using silks alone.

21. (i) Winding and twisting is done both by people of the cottage industry and also by the aid of machinery for the weavers.

(ii) & (iii) Majority done by silk dyeing concerns and

(iv) Doubling and warping are done by the weavers.

23. Spun silk is mainly used for the manufacture of sarees, coatings, shirtings, etc., under the name of "spun silk goods".

24. Both Indian and foreign silks should be conditioned and certificates issued so that weavers may study the qualities of both the kinds of silks and select the best.

27. It is certainly a fact that artificial silk has replaced raw silk to a very great extent owing to the extreme cheapness of its price and the position has not at all improved.

28. Same duty as on raw silks have also to be imposed on foreign spun silks.

29. Probably Japan might have lost other markets and so they are finding new markets for these products and India is one of them.

31. Yes.

32. Cottage industry of silk-throwing has been completely ousted out by the imports of foreign thrown silks which are priced very cheap and have a difference of only As. 12 to Re. 1 per lb. over the prices of raw silk. Before the import of foreign thrown silks, major people of each of the silk weaving centres, were dependent upon the cottage industry of silk throwing and they were paid Rs. 2 to Rs. 2-4 for twisting (by hand) one pound of organzine silk and now such imported (foreign) thrown silks are being sold at difference of As. 12 to Re. 1 per lb., over the price of raw silk, so they will get produced thrown silks by hand paying extra charge (to add to which the imported thrown silks are made by machinery). This means the protection on thrown silk is not adequate and there should be additional duties levied on them apart from the existing duties, i.e., present duties, plus additional duties not less than Rs. 2 to Rs. 2-4 per lb. classifying thrown silks separately from raw silks.

33. A spun silk factory* at Channapatna and a Joint Stock Company at T. Narsipur are being floated for reeling raw silks.

नमो भगवते वासुदेवाय

(2) Letter dated the 15th August, 1938, from Khoday Eshwarsa, Esq., 38, Santhusapet, Bangalore.

During the oral evidence of silk-throwsters, the report submitted by us was found not satisfactory, to ascertain actual cost of producing organzine silks, as such, we beg to herewith enclose an amended statement to the one that was previously sent to your kindness, and earnestly request you to kindly peruse it.

The cost of production of our thrown silks were combinedly given for preparing organzine twisted silks and also tram twisted silks but as they could not give you a proper idea of the actual costs of preparing 1 (one) pound of 20/22 denier organzine silk by us, for purpose of comparison of our prices, with the prices of foreign thrown silks, we beg to convert tram silks to organzine silks, on the base that the charges for preparing tram silks, are added over the price of raw silk, between the ratio of As. 6 to As. 8 per lb., and so the 2,200 lbs. of tram silks that we are preparing per month, apart from organzine silks, may be converted to about 550 lbs. of 20/22 denier, 2 ply organzine silk. So, the monthly production of 20/22 denier organzine silks in our factory would be 1,600 (one thousand and six hundred) pounds as per previous statements, plus 550 (five hundred and fifty) lbs. in respect of the conversion of 2,200 lbs. of tram silks, thus making a total of 2,150 (two thousand one hundred and fifty)

* Started.

pounds. The actual costs of these 2,150 lbs. of organzine silk would be as follows:—

	Rs.
Monthly wages, power, etc.	1,750
Monthly wastage of 50 lbs. costing at Rs. 6 per lb.	300
Monthly interest on investments such as, machinery, land, buildings, and working capital at a rate of 10 per cent. per annum	1,950
Total	4,000

As per above figures, the cost of preparing 1 lb. of 20/22 denier organzine silk would be Rs. 1-13-9 per lb.

We have not been able to set apart any amount for the depreciation of the buildings, machinery, etc., owing to the keen Japanese competition, we have been facing, ever since we expanded our industry of silk-throwing in the year 1933-34.

As the charges for even 13/15 denier foreign thrown silks have a difference of only Re. 1 per lb. over the price of raw silk, at which rate we could not even think of manufacturing it here, we pray your kindness, to classify foreign thrown silks separately from foreign raw silks and to levy upon them a import duty additional to the present existing duties, not less Rs. 2 to Rs. 2-8 per lb., and save us from running our industry to a great loss. If additional duties as above are levied, it would also enable silk-throwsters of the cottage industry, to undertake silk-throwing again, and the number of such unemployed silk-throwsters of the cottage industry could be counted in millions all over India.

35. Replies and representations received from Sericulturists, Aided Graineurs, Merchants, Reelers and such other interested parties in Mysore.

(1) *Letter from the Superintendent of Sericulture in Mysore, No. 127, dated the 25th July, 1938.*

I have the honour to enclose herewith four copies of replies received from Mr M. N. Manjundaiya, Sericulturist, Mugur, T. Narasipur Taluk, regarding the General Questionnaire on the Sericultural Industry issued by the Indian Tariff Board.

I have received replies to the General Questionnaire by a few sericulturists. These are in Kannada. These will be translated and sent to you as early as possible.

1. Sericulture is the most important subsidiary industry of the people of this area, i.e., Chamarajanagar, T. Narasipur, Nanjangud and Yelandur Taluks. There are nearly ten thousand families rearing silkworms and an equal number of families employed in the cultural operations of mulberry cultivation and the manufacture of the appliances required for silkworm rearing. Nearly 3 to 4 thousand families are employed in the reeling industry, on the whole about 25 to 30 thousand families are depending upon the Sericultural Industry for their livelihood. There has been some tangible development in the Sericultural Industry, since the protection was granted in the year 1934. Attempts have been made by the Sericulturists to rear improved varieties of silkworms and effect economy in the several items of rearing work with the result that the rearing of cross-breed worms issued by the Government Grainages have become very popular and are reared on a large scale. Attempts are being made to reduce

cost of production of mulberry leaves by planting mulberry Topes and seedling plantations which is found to give some reduction in the cost of mulberry leaves. The various methods suggested by the Department to improve rearing are adopted by the Sericulturists as a result of which they are getting better yield in their rearings—now.

2. The mulberry cultivator himself is the silkworm rearer and he does not grow mulberry for sale. He does not require heavy capital for his requirements. The rearings are conducted in his dwelling house, the mulberry grown on his land are utilised for rearing worms, no labour is employed for rearing work, the work being attended to by his family. Sometimes, if he has no adequate supply of leaves in his garden, he purchases the leaves and the money is obtained as advances from cocoon reelers, which would be repaid while the cocoons are sold to him. When the demand for silk is great he gets ready money for his cocoons and when it is otherwise, he may have to wait till the silk is sold. Charka reeling is most common and reeling establishments are situated very near the Sericultural villages. And the silk produced by the reeler is sold to the silk merchant at Kollegal, where he gets ready money for his silk, if there is no demand he will have to wait till the silk is sold, but he gets some advances from the silk merchants on the security of the silk kept for sale and he has to pay interest on such advances besides paying a commission for the sale of silk. There are Sericultural Co-operative Societies which are lending small sums on reasonable rate of interest to their members for purchase of leaves and other expenses which is usually repaid, after the cocoons are sold.

3. There are about 17,000 and 18,000 acres of mulberry in this area and about 10 to 11 maunds of cocoons could be harvested for an acre of mulberry and little less than a maund of silk could be produced in an acre of mulberry garden. So it may be said roughly that about 15,000 maunds of silk could be produced in this area on the present acreage of mulberry. But owing to irregular rain-fall and absolute failure of the same for the last two years the yield may be poorer, since in this area mulberry is grown purely as a rainfed crop.

4. The local variety of silkworm is usually reared and also cross-breeds issued by the Sericultural Department are reared on large scale.

5. Since rearings are conducted in the dwelling house of the rearer, there are no separate house for rearing worms, but to construct one it may cost about 4 to 5 hundred rupees. Stands, Trays, Chapping boards, Chandrikeys and knives are the usual equipments of the silkworm rearer. The stand last from six to eight years and Chandrikeys two to three years and the rest for three years and its cost about fifty rupees to provide the equipment for rearing about 30 Trays of worms. The Chandrikeys have been improved by providing closer spirals to avoid wastages of silk while spinning. There is no variation in the cost of appliances for the last five years.

7. The method of rearing the silkworms is the same as it was before, but some slight changes have been adopted in feeding the silkworms as per suggestions given by the Department, so as to achieve more satisfactory results.

Improvements effected are:—

- (1) To assume uniforms hatching feather is used to brush the eggs, gently, prior to hatching.
- (2) Feedings are regulated so as to assure fresh leaves at every feeding and prevent wastage of leaves. The worms in earlier stages are given more feeding than in later stages which is found to be more necessary.
- (3) Since overcrowding of worms in Trays tells upon the growth of worms the worms are thinly spread so that the worms may have uniform supply of food.

- (4) The use of paddy husk in cleaning silkworm beds, is found very beneficial and is easier to change them to other Trays, since husk absorbs extra moisture, the rearing beds will be free from bacterial attacks and fermentation of leaves is minimised.
- (5) The worms are mounted thinly on Chandrikey especially made with closer spirals to prevent wastage of silk, which will also facilitate the formation of the regular shaped cocoons. This minimises the formation of double cocoons. The Chandrikeys are placed slantingly not to allow the urine to drop over the cocoons. The deceased worms are usually picked out from Chandrikey which prevents the staining of good cocoons and are put in separate basin containing 2 per cent of Farmeline solution.

9. The worms reared are from local seed, the departmental grainages and private graineurs aided by Government are preparing disease-free seed from seed cocoons procured from seed campaign areas and are selling the disease-free seed at Rs. 1-6-5 for an ounce of seed of cross-breed and As. 11-3 for an ounce of pure Mysore layings. The aided grainages are working under the close guidance of the Sericultural Department and very careful attention is paid to the proper selection of seed cocoons, moths and eggs. Besides these grainages there are also some private seed vendors who are also getting seed cocoons from seed campaign area and sell them to the rearer without any examination, and sell them on credit, the money being realised only, if the crops are successful. With the advent of more aided grainages during recent years and popularity of cross-breed layings of the departments the seed vendors are gradually disappearing and have taken up rearing work themselves.

10. There is no legislation regarding disease-free seed.

11. The worms reared by us are multivoltines and about five breeds are reared in a year. About 40,000 worms are obtained from an ounce of seed.

13. Whenever there is break out of disease in any village departmental assistance is sought and the houses of such rearers and rearing appliances are immediately disinfected and the spread of the disease is checked.

14. About 10 to 15 per cent. of worms are lost in the early stages of rearing, due to careless handling. The loss is minimised by giving proper attention in cleaning silkworm beds by using paddy husk. The loss has been reduced by about 3 per cent.

15. The worms are fed on mulberry leaves, grown by the rearer himself on his own land. The recurring cost of maintaining an acre of Bush mulberry would be about fifty rupees. The cost of manure being about eighteen rupees and cultural operations cost about thirty rupees with a miscellaneous expenses of about a couple of rupees. There would be about 4,000 bushes in an acre of mulberry. About 200 trees could be planted in an acre of land. The bushes last for about ten to twelve years and the trees live longer.

16. (a) Plantations made or cuttings obtained from seedlings are found to give 15 per cent. better yield. I have planted about 3 acres at the suggestion of the department with seedling cuttings from which I have been harvesting about 45 to 50 head loads of leaves which gives an yield of 4,500 to 5,000 per acre. The land being in an old tank bed having the additional facility of getting manural silt usually gives me a comparatively better yield from my land, even allowing for this special advantage, I am getting about 500 lbs. more than what I was getting by planting ordinary cuttings. The Sericulturists have just realised the advantages of this system and are trying to plant seedling cuttings. There has been no extra expenditure on such plantations as the department is supplying cuttings, free of cost.

(b) The indigenous mulberry yields about five crops a year.

17. There are no separate cultivator of mulberry and breeders of worms. The rearer himself is the mulberry grower and all the mulberry grown by him, is utilised for his own rearings.

18. The prices of foodstuffs did not vary much during the last five years and only during this year there is about 10 to 12 per cent. rise, but the prices of cocoons and raw silk varied considerably. During the last year the prices of cocoons went up to Rs 11-8 a maund showing nearly 75 to 80 per cent. rise in prices, but fell down suddenly to its original level, and the prices now are practically the same as it was some 4 years ago.

19. There has not been any considerable reduction in the cost of mulberry till now. The department has been suggesting the plantation of mulberry trees and seedling plantation to effect reduction in the cost of mulberry, and the ryots are gradually taking it up.

20. The improvements effected in rearing are explained in reply to question No. 8.

21. We are not rearing univoltine and bivoltine except for producing seed cocoons. The pure Mysore race worms give an yield of about 50 to 55 lbs. of cocoons for an ounce of seed, and cross-breeds give about 75 lbs.

23. The statement of expenditure for rearing one ounce of seed is as follows:—

	Rs. A.
Cost of seed	1 6
Cost of labour	2 0
Cost of leaves	11 8
Cost of appliances	1 2
Other expenses	0 6
Total	<u>16 6</u>

24. The present price of cross-breed cocoons is As. 4-2 per lb. and of pure Mysore is about As. 3-10 per lb. During the last five years it reached a maximum of As. 7 per lb. and the minimum price was about As. 3-8 per lb., which is practically the prevailing price now.

25. The breeder of worms has to sell away his cocoons to the reeler and cannot afford to wait till prices suit him.

26. About 90 per cent. of the total production of raw silk is done on country charkas run by human labour.

27. A country charka costs about 10 to 12 rupees and lasts for about five years. About 2 to 2½ seers of silk could be got from a charka per day according to the quality of silk reeled.

28. The protection that is to be granted should be such as to completely restrict the importation of foreign silks, fabrics and knit goods to India. The protection already granted in the year 1934 was too inadequate and Japan's export of raw silk to India, is still very heavy. The foreign silk are practically sold at the same price or even less, as it was five years ago, and the protection granted had no tangible effect at all. The protection to be granted now must be such, that, the foreign silks should not be sold for any price less than the actual cost of production of Indian raw silk, allowing a reasonable margin of profit, for the cocoon and silk producer.

29. The protection granted in 1934 was too inadequate to have any influence on the local market prices.

30. We hope, by further grant of tangible protection for the industry for at least 15 years to come, to reduce the cost of production of cocoon, by making use of the departmental advise, given from time to time.

(2) Reducing the cost of leaves, by planting, seedling, cutting and by raising mulberry trees in the backyards of our houses and in the margin of our fields, which enables us to secure leaves practically without much cost.

(3) By improving the methods of rearing, etc., as detailed in question No. 8 and by rearing improved races of worms.

(2) *Letter from the Superintendent of Sericulture in Mysore, No. 152, dated the 28th July, 1938.*

I have the honour to state that when the Tariff Board visited the several Sericultural villages in Mysore State during June, 1938, representations were presented by sericulturists. These representations are in Kannada.

As desired by you, I got summaries of representations made in English and I send herewith three copies of the summaries along with the original representations.

Representations of the Sericulturists presented to the Members of the Indian Tariff Board during their visit to Sidlaghatta Circle, on 29th June, 1938.

Serial No.	Names of sericulturists and their addresses.	Nature of Representation.
1.	Mr. V. M. Rudrappa, Vice-President, Vadigenahalli, Devanahalli Taluk. (On behalf of the sericulturists of Vadigenahalli.)	Pure Mysore race layings were being reared till the year 1932 and the yield of raw cocoons per 100 disease-free layings was only 40 to 45 lbs. After 1932, the rearing of cross-breed disease-free layings is highly encouraged, the required quantity of cross-breed layings being supplied by Government and aided grainages. The raiyats are highly benefited by rearing cross-breed layings, the average yield per 100 cross-breed layings being 50 to 60 lbs. of cocoons. If the present protection to the silk industry is withdrawn, there is every likelihood of the industry being decayed. Hence, requests that the present protection may be continued to a period of ten years, so that the industry may be improved.
2.	Mr. Chikkaveeranna, son of Chikkaveera Setty, Vadigenahalli, Devanahalli Taluk.	Has got experience of the industry for 50-55 years. By experience he has found that by raising mulberry tops the expenditure would be much less than by planting cuttings; that the leaves are better than the leaves got by cutting plantations; that it would facilitate to raise intercrops; that he has planted 110 mulberry trees supplied free of cost from the Sericultural Department; and that he has harvested 2-2 lbs. of leaves on an average per tree per crop. Though he is not getting a large profit now he is sure of getting better profit at least in future.

Representations of the Sericulturists presented to the Members of the Indian Tariff Board during their visit to Sidlaghatta Circle, on 29th June, 1938—contd.

Serial No.	Names of sericulturists and their addresses.	Nature of Representation.
3.	Mr. C. Muniswamaiya, Aided-Graineur, Vadigenahalli, Devanahalli Taluk.	<p>Sericultural Industry is hereditary to his family. Was once a rearer of pure Mysore layings. There used to be failure of crops while rearing only pure Mysore layings and the maximum yield was 40 to 45 lbs. of cocoons only. Now, there has been great demand for cross-breed layings, and that after the introduction of cross-breed layings and the timely instructions given by the staff of the Department of Sericulture, the yield from cross-breed layings is growing more and more, the average yield per 100 cross-breed disease-free layings being 50 to 60 lbs. of raw cocoons.</p> <p>Is an aided graineur and has been preparing cross-breed layings in his aided grainage from December, 1937.</p>
4.	Mr. B. M. Ahmad Beig, Country charka owner, Bagalur, Devanahalli Taluk.	<p>The cost of production of reeling 24 lbs. of cross-breed cocoons at As. 4-9 per lb. to get 2 lbs. 7 tolas of raw silk and 1 lb. of silk waste is Rs. 9-4. The selling price of 2 lbs. 7 tolas of silk at Rs. 3-12 per lb. and 1 lb. of waste at Rs. As. 5-3 per lb. would be Rs. 8-2-6. As such, the actual cost of production of 1 lb. of silk of III quality is Rs. 4-4-1 and the actual amount realised by the sale of 1 lb. of silk of III quality is Rs. 3-11-9. Hence, the loss per lb. of silk (III quality) is As. 8-4.</p>
5.	Mr. Marichannappa, Merchant, Bagalur, Devanahalli Taluk.	<p>The cost of production of reeling 24 lbs. of cross-breed cocoons at 5 annas per lb. to get 2 lbs. 7 tolas of raw silk and 27 tolas of silk waste to Rs. 9-6-11. The selling price of the 2 lbs. 7 tolas of silk and 27 tolas of silk waste would be Rs. 8-4-4. The average selling price of 1 lb. of silk for the last one year is Rs. 3-12, and as such, the loss by the sale of 1 lb. of silk is As. 7-7.</p>
6.	Mr. R. Dasappa, Devanahalli.	<p>The cost of newly planting one acre of land with mulberry cuttings will be Rs. 150. The cost of maintaining the garden year after year works out to Rs. 135. The yield</p>

Representations of the Sericulturists presented to the Members of the Indian Tariff Board during their visit to Siddlaghatta Circle, on 29th June, 1938—contd.

Serial No.	Names of sericulturists and their addresses.	Nature of Representation.
7.	Mr. K. M. Nanjundappa, Representative Assembly Member and School Board Member, Melur, Jangama-kote-Hobli, Siddlaghatta Taluk (on behalf of the sericulturists of Melur).	<p>of leaves per acre will be 180 bundles of 60 lbs. each or 10,800 lbs. Thus, the cost of production of 1 lb. of leaves works out to 2-4 pies. The cost of rearing 5 crops per year would work out to Rs. 248-11. The yield of cocoons, on an average, per year, is 850 lbs. The average rate per lb. of cocoons was As. 4-9, while the cost of production of 1 lb. of cocoon is As. 4-6. Thus, the total income for one year including the cost of litter (10 cart loads) at Rs. 1 per cart load (Rs. 10) is Rs. 262-5-6. 16 lbs. of mulberry leaves are required to rear Mysore silkworms to get 1 lb. of Mysore cocoons and 14½ lbs. of mulberry leaves are required to rear cross-breed silkworms to get 1 lb. of cross-breed cocoons.</p> <p>Sericulture is the main occupation of the raiyats of Melur and the surrounding villages, of whom the representative is one. He is experienced in the industry for the last 10-15 years, as a silkworm rearer, charka owner, and silk merchant—purchasing silk from others and exporting them to Gadag, Hubli, etc. He has reduced his activities in the industry as he has been incurring a heavy loss. The raiyats who were leading easy and peaceful lives by this industry about 10-15 years ago, do not find proper rate for their silk, of late, due to the competition of cheap foreign silks imported into India from China and Japan. At this stage, the Department of Sericulture in Mysore came to the rescue of the sericulturists and introduced the rearing of higher and quicker yielding cross-breed silkworms, which has encouraged the raiyats a good deal. The raiyats of this village and the surrounding villages obtain their supply of disease-free silkworm eggs from the Government Grainage at Siddlaghatta and the aided grainages in the Circle. The yield per 100 Mysore layings is 40 to 45 lbs., whereas, the yield per 100 cross-breed layings is 55 to 60 lbs.,</p>

Representations of the Sericulturists presented to the Members of the Indian Tariff Board during their visit to Sidlaghatta Circle, on 29th June, 1938—contd.

Serial No.	Names of sericulturists and their addresses.	Nature of Representation.
		<p>as a result of which the area under mulberry is increasing. It is learnt that the protection afforded to the silk industry by the Government of India is coming to a close. As the industry has not improved much so far, pray that the protection granted by the Government of India may be extended for a period of another ten years and thus help the raiyats who are mainly depending upon this industry.</p>
8.	<p>Mr. M. S. Veerappa, Chairman, Village Panchayet, Melur, Jangamakote Hobli, Sidlaghatta Taluk (on behalf of the sericulturists of Melur).</p>	<p>There are 400 houses in this village. The population of the village is 1,500. Sericulture is the main occupation of the raiyats of this village. But, due to competition from cheap foreign silks, the industry has deteriorated, as a result of which, this village which used to export silk worth about Rs. 50,000 per month about 10-15 years ago is not in a position to export even Rs. 1,000 worth of silk per month at present. The industry which had to dwindle as a result of the keen foreign competition, has been standing at least at the present state of affairs on account of the protection granted to the Silk Industry by the Government of India about 5 years ago, and the introduction of the rearing of the higher and quicker yielding cross-breed layings by the Department of Sericulture in Mysore, as a result of which, the area under mulberry cultivation which was 113 acres 10 guntas during last year has increased to 143 acres 10 guntas during the current year. The raiyats of this village and the surrounding villages obtain their supply of disease-free silkworm eggs from the Government Grainage at Sidlaghatta and the Sericultural Co-operative Society aided grainage at Melur and they are getting good crops out of these layings. The yield of cocoons per 100 pure Mysore disease-free layings is 40 to 45 lbs. and from 100 cross-breed disease-free layings is 55 to 60 lbs. There is every likelihood</p>

Representations of the Sericulturists presented to the Members of the Indian Tariff Board during their visit to Sidlaghatta Circle, on 29th June, 1938—contd.

Serial No.	Names of sericulturists and their addresses.	Nature of Representation.
		<p>of the industry dwindling if the protection granted by the Government of India is stopped at present. Hence, pray that the protection may kindly be extended for at least another ten years and thus help the raiyats who are mainly depending upon this industry.</p>
9.	<p>Mr. A. C. Mallikarjunappa, son of Mr. Chennaveerabhadrappa, Melur, Jangamakote Hobli, Sidlaghatta Taluk.</p>	<p>Sericulture is practised from a very long time in this village. It is a subsidiary industry to Agriculture. Has got experience of this industry for 30 years. Is a rearer as well as a silk merchant. Rs. 50,000 worth of silk was being exported from this village every month about 20 years back. The silk trade has considerably reduced due to the competition from cheap imported foreign silks. There would be heavy loss to the sericulturists as well as silk merchants if the present protection granted to the silk industry by the Government of India is withdrawn. Hence, prays that the protection may kindly be continued till the industry improves, i.e., at least for 10 years.</p>
10.	<p>Mr. J. Krishna Rao, Secretary, Sericultural Co-operative Society, Melur, Sidlaghatta Taluk (on behalf of the members of the Society).</p>	<p>The Society was started on 3rd May, 1930, with the idea of helping the sericulturists of the locality. The Government of Mysore, with a view to arrange for adequate supply of disease-free layings have encouraged the starting of aided grainages by supplying the required appliances for a grainage at a concession rate and by granting bonus on the layings prepared in the aided grainages, as a result of which it has facilitated the sericulturists to obtain good crops. The sericulturists are profited by rearing cross-breed layings. The yield per 100 puro Mysore layings is 40 to 45 lbs. of cocoons and yield per 100 cross-breed layings is 55 to 60 lbs. As a result the area under mulberry cultivation in this area is increasing day by day. The staff of the Sericultural Department visit the rearing houses of the raiyats, inspect their crops and give them timely</p>

Representations of the Sericulturists presented to the Members of the Indian Tariff Board during their visit to Sidlaghatta Circle, on 29th June, 1938—contd.

Serial No.	Names of sericulturists and their addresses.	Nature of Representation.
		<p>instructions in regard to the improved methods of rearing. There are at present, 35 members, in this Society, with a share capital of Rs. 154-2 and a Reserve Fund of over Rs. 300. So far, the Society has prepared and distributed 492,102 disease-free layings of Mysore Race and 733,123 disease-free layings of cross-breed race. The economic advantages of rearing cross-breed eggs is realised by the raiyats and its use is becoming very popular. The industry is encouraged by the assistance of the Mysore Sericultural Department on the one hand and by the protective duties imposed so far by the Government of India on the other. If the present protective duties are discontinued, the economic position of the raiyats engaged in the Sericultural Industry will be hard hit and time may come when they will have to give up the industry. Hence, prays for the continuation of the present protection for 15-20 years more to come, by which time the industry becomes well established and the sericulturists are benefitted.</p>
11.	<p>Mr. K. Narayanaswamy, Melur, Jangamakoto Hobli, Sidlaghatta Tank (on behalf of the Congress Committee of Melur Village, Sidlaghatta Taluk).</p>	<p>From a long time since Sericulture has been a primary occupation in this village. Owing to the competition of foreign silks, the market for indigenous silk was becoming gradually dull. But after the imposition of the protective duties by the Government of India, the position of the indigenous industry is slowly improving and is promising of further improvement. We deeply regret to note that the time has come when the present protection period is soon coming to a close. The class of people whose occupation in life is sericulture is uneducated; as such, it is extremely difficult to persuade them to take up and train themselves for a new occupation. Hence, prays for an increased protection for some more time to come which will enable the Mysore sericulturists to further improve their work and be in a position to compete with the foreign silks in the market.</p>

Representations of the Sericulturists presented to the Members of the Indian Tariff Board during their visit to Sidlaghatta Circle, on 29th June, 1938—contd.

Serial No.	Names of sericulturists and their addresses.	Nature of Representation.
12.	Mr. M. Lakshminarayana Rao, Village Pauchayet Chairman, Melur, Jangamakote Hobli, Sidlaghatta Taluk (on behalf of the sericulturists).	<p>The village consists of about 250 houses with a population of over 1,000. Sericulture has been the important occupation for these people from a number of years past. Formerly, the use of Mysore eggs was popular and the yield per 100 disease-free layings was 40-45 lbs. But, at present the introduction of the cross-breed layings has been giving a higher yield from 55 to 60 lbs. per 100 disease-free layings. Besides, the rearing period of Mysore race extends over a period of about one month, while the rearing period of cross-breed layings is 24 to 26 days. The increased yield per 100 disease-free layings and the reduction in the rearing period have been two beneficial factors in the present state of the industry as compared with the former state of the industry.</p> <p>Since a few years, the imports of foreign silks to our country and their low selling prices have been the causes for not getting a fair price for our products and the losses sustained thereby. Although a good return and profit are not to be still had, the industry is being continued chiefly because of the present protection. Our occupation is a little bright because of the existing protection and because of the distribution of the disease-free cross-breed layings by the Government and aided grainages in Melur, Sidlaghatta and Vadigenahalli. If the present protective duties are withdrawn, the industry will completely dwindle and the raiyats will be put to a terrible hardship without a means of livelihood. Hence, pray for the continuance of the present protection until the industry is well established in the State which may require another 20 years at least, by which time the industry will be placed on a sound and permanent basis and will provide a fair means of livelihood to the poor raiyats.</p>

Representations of the Sericulturists presented to the Members of the Indian Tariff Board during their visit to Sidlaghatta Circle, on 29th June, 1938—contd.

Serial No.	Names of sericulturists and their addresses.	Nature of Representation.
13.	Vadigenahalli Muniswamappa, Handignala, Sidlaghatta Taluk.	The people of the village have been practising sericulture from a number of years. But, since 7-8 years, the competition from the Chinese and Japanese silks, reduced considerably, the selling prices of Mysore silk and those engaged in the industry sustained terrible losses. Finally, they had to give up the industry. Since these four years during which protection is in force they have been encouraged again to replant mulberry both on the bush and tree systems. The initial cost of planting mulberry and the recurring costs are both high. If protection is stopped at this initial stage of recovery, the industry will be doomed to perish. Hence, pray for an increased for a further period of 15 years.
14.	Mr. S. Hampaiya, President, Sericultural Co-operative Society, Sidlaghatta (on behalf of the members of the Society).	Sericulture has been the occupation of a number of people in Mysore. There are a good number of families whose primary occupation in life is sericulture. On account of the large imports of raw silk from foreign countries and their low selling prices fair prices for the pure and fine Mysore silk was not to be obtained in the market. The amount of loss incurred by those connected with the industry was threatening the very existence of sericulture in Mysore. The Mysore sericulturists are deeply grateful to the Government of India for having granted protection at such a critical period. Within this period of protection, the Mysore sericulturists have attempted to reduce the costs of production of silk and face the competition of foreign silks. The Government of Mysore have also provided many facilities to the industry during this period. The production and distribution of higher and quicker yielding cross-breed disease-free layings has been increased by increasing the number of Government and aided grainages. With the co-operative efforts of the Government and the raiyats there is a

Representations of the Sericulturists presented to the Members of the Indian Tariff Board during their visit to Sidlaghatta Circle, on 29th June, 1938—contd.

Serial Names of sericulturists
No. and their addresses.

Nature of Representation.

fond hope that an organisation which is able to meet the entire demand of cross-breed layings will soon be established. In the present state of affairs all the members of a family have to work but the return for their labour is not enough to maintain them. Before protective period the position of the silk industry was one of doubt but after the event of the protective duties about 50 per cent. of this doubt is lost. If the present protection is withdrawn the selling prices of foreign silks become cheaper still and the Mysore Sericultural Industry which is still recovering shall be exposed to a grave risk. Hence, prays for the extension of the protection period for another 10 years by which time efforts will be made to improve the industry on the most modern lines, reduce the cost of production and to face and withstand the foreign competition.

15. Mr. D. Aswathanarayana Setty, Vice-President, Sidlaghatta Town Municipality and silk merchant (on behalf of the sericulturists of Sidlaghatta Town).

Sericulture has been the chief occupation of more than 75 per cent. of the raiyat population both in this town and the suburbs. Owing to the competition of the Chinese and Japanese silks, the market for the Mysore silk gradually declined and there was even the fear of its extinction. The protective duties which came into force at this period aided the recovery of the industry once again. During the short interval of protective period it was not possible to effect substantial changes in mulberry cultivation and silkworm rearing, for the economic position of the raiyat was very bad and the prices for food-stuffs fell. The finances of the raiyat did not permit of spending even little amounts over the improvements. But certain improvements were effected in the reeling methods as a result of which the prominent place held by the Kempanahalli silk is now taken by the Sidlaghatta town silk. At present neither mulberry cultiva-

Representations of the Sericulturists presented to the Members of the Indian Tariff Board during their visit to Sidlaghatta Circle, on 29th June, 1938—contd.

Serial No.	Names of sericulturists and their addresses.	Nature of Representation.
		<p>tion or silkworm rearing is profitable to the ryot except that there is some occupation in life to the members of a family. If the return on such family labour is taken into account, it will be seen that is not paying the ryot. If 15-20 years of time is given tangible results can be shown both in mulberry cultivation and silkworm rearing. Since the imposition of the protective duty, the ryots have given up rearing the pure Mysore race worms and have taken up to rearing of cross-breed races discovered by the Sericultural Department. Further the use of unexamined seed has considerably fallen down and the examined seed issued the Department has become very popular among the ryots. As a result all the crops in a year are harvested successfully. During the course of another 15-20 years, the ryots will eagerly adopt the improvements found out and suggested by the Department increase the yields two-fold, and be in a position to compete with the foreign silks. To achieve this end, the present rate of protection should not only be continued for another 15-20 years but also, should be increased.</p>
16.	Mr. Muniswamiah, son of Muḍḍappa Thimmappa, Nandi Hobli, Chikballapur Taluk (on behalf of the sericulturists of Andarlahalli village).	<p>The village consists of about 100 houses with a population of 600. A good majority of the total population is engaged in sericultural work. In spite of certain advantages of the protection during these 5 years the cost of maintenance of an acre of garden will be about Rs. 230 and the yield about Rs. 225. The rearing of silkworms and harvest of cocoons is not at all paying. We do not employ paid labour, but the members of the family carry on the work. Since there no cash payment to be made and the return is all enjoyed by the family alone the industry is being pursued. It is impossible to conduct the work with paid labour. Besides the sericultural industry is one of ancient</p>

Representations of the Sericulturists presented to the Members of the Indian Tariff Board during their visit to Sidlaghatta Circle, on 29th June, 1938—contd.

Serial No.	Names of sericulturists and their addresses.	Nature of Representation.
17.	Mr. G. Narayana Reddy, Aided Graineur, Gidnahalli, Chikballapur Taluk.	<p>origin and is passed on from father to son since a few generations. This is one of the reasons why the industry is being pursued. Prays for an increased protection to continue for at least 15 years to come.</p> <p>10 or 12 years ago he was preparing only pure Mysore race eggs. After a course of few years, when he prepared a large quantity of Mysore and cross-breed layings he was enrolled as an aided Graineur, in the year 1930. There is a gradual increase in production in this year and consequently the mulberry cultivation is being improved. If the same trend is kept up for another 15 years the economic position of the sericulturist can be improved. He requires a furtherance of the protection for that period. During the present short period it was not possible to effect changes in the costs of production because of the financial stringency and fall in the prices of foodstuffs. There is no doubt in being able to compete with the foreign silks in about 15 years time if the present protection is continued for that period.</p>
18.	Mr. Malipapiah on behalf of the sericulturists of Yallahalli village, Nandi Hobli, Chikballapur Taluk.	<p>Sericulture has been the chief source of their livelihood from a very long time. Owing to the competition of foreign silks which began 7-8 years ago the prices for Mysore silk gradually fell, and as a result of this the ryots had to sustain loss. At a certain stage it was impossible for the ryot to continue the industry. Hence all the mulberry was uprooted. But four years ago when the protective duties were imposed on foreign silk the ryots again took up the work on hand with a fond hope that the market for their raw material might improve. In fact they are not far disappointed in their expectation. The stage is critical. If the present protection is continued for at least another 15 years chances are to push forward the industry, increase in all its aspects of work and improve the economic position of the ryot.</p>

Representations of the Sericulturists presented to the Members of the Indian Tariff Board during their visit to Sidlaghatta Circle, on 29th June, 1938—contd.

Serial No. Names of sericulturists and their addresses.

Nature of Representation.

19. Mr. G. R. Hanumanappa, Chairman, Village Pauchayet, Gidnehalli, Nandi Hobli, Chikballapur Taluk (on behalf of the sericulturists in his village).

He has 20 years of experience in the industry inasmuch as he was rearing silkworms and carrying on trade with cocoons. Sericulture has been an occupation from a very long time to the ryots of that village, to a few it is a subsidiary occupation and to a majority it is a primary one. 15 years ago his average earnings per month were about Rs. 500 but to-day he is working at a tremendous loss. Ever since duties were imposed on foreign silks, the industry is being pursued without profit but only with a certain amount of return to the labour of the family. We regret very much to hear that even this concession will soon terminate. The results of such a state of affairs will be the complete cessation of the silk trade and a great hardship to a number of poor villagers who are making a poor living out of it. Hence prays for an extension of protection for over 10 years until the Mysore industry becomes safe and sound.

20. Mr. Nanjegowda, son of Range Gowda, Varadahalli, Nandi Hobli, Chikballapur Taluk.

The village consists of 25 houses with 180 families. The only means for all these families is sericulture. Since protection was granted 5 years ago their economic position is one of not much of loss. The introduction of cross-breeds eggs has been another blessing on them inasmuch as that the rearing period is reduced to 25 days and average yield has increased to 60 lbs. per 100 disease-free layings. Regrets to note that the present protection will stop. If that be the case the industry completely dies and their living becomes difficult. Hence prays for an enhancement of the existing duty and extension of the period for another 15 years.


Representations of the Sericulturists presented to the Members of the Indian Tariff Board during their visit to Sidlaghatta Circle, on 29th June, 1938—contd.

Serial No.	Names of sericulturists and their addresses.	Nature of Representation.
21.	Mr. Lakshmiah, son of Devappa, Thundramaradahalli, Chikballapur Taluk (on behalf of the sericulturists).	Although the industry is being pursued, even after the introduction of protection, they could overcome the loss. The maintenance of an acre of mulberry garden will cost between Rs. 520 to Rs. 525. The output will be Rs. 525 to Rs. 530. Even if silkworm rearings are conducted they are not profited. The family entirely does the work. If paid labour is employed the occupation shall have to be given up. The industry is continued on account of its tradition. Since these 5 years they are rearing cross-breed eggs and getting more yields. If further protection is granted they will use more manure to their gardens, and increase the yield of leaf per acre. The village consists of 30 houses of which 25 families of 25 houses depend upon this industry. 500 people in the village are maintaining themselves chiefly from rearing silkworms. Prays for the imposition of an increased protective duty for at least 15 years.
22.	Messrs. Sreekantiah, Shamboge, Channarayappa, Patel, Sonnagowda, V. P. Chairman, on behalf of the ryots in Pattrenahalli, Chikballapur.	Sericulture is a subsidiary occupation to agriculture. The village consists of 100 houses with a population of 516 people. All of them depend only on Sericulture for their livelihood. The gradually fall in the prices of silk since 7-8 years also reduced gradually the number of people depending on it so that at present there are only 7-8 families still engaged in the industry. The others have given up Sericulture and took up other occupation. But this change has not bettered their condition, and they are only waiting to renew their old occupation. The introduction of examined seed has bestowed certain benefits to the sericulturists, but this has not been the end all. If the ryots in Mysore should improve the present rate of duty should be increased and the period extended for over 10 years. Pray that their representation to be favourably considered.

Representations of the Sericulturists presented to the Members of the Indian Tariff Board during their visit to Channapatna Circle on 30th June, 1938.

Serial No.	Names of sericulturists and their addresses.	Nature of Representation.
<i>Bidadi Area.</i>		
1.	Mr. Chabu Sab, Bidadi, Closepet Taluk.	Has been engaged in Sericulture for more than about 20 years and about 6 to 7 families are producing seed cocoons. Since the decline in prices before the August visit of the Tariff Board during 1933, a large number of families gave up sericulture in this area as they were not able to meet the expenses of mulberry cultivation even. But the protection given after this revived the industry to a great extent. Still the seed cocoons are not sold at favourable rates in spite of the increase in demand. This is due to the fact that all the gardens in this area are irrigated and the expenses of cultivation is not lowered considerably and requires quite a long time. Hence pray that measures be taken to give protection.
2.	Seed Rearers of Bidadi Seed Campaign Area, Bidadi, Closepet Taluk.	The area under mulberry has been reduced by more than half since the decline in prices of silk and during the latter part at 1937 again there was an increase of about 50 acres which is primarily due to the rise in prices for silk though for a short period. Now again the prices of cocoons, silk, etc., are steadily keeping low.
		The rearers of this area on an average possess only about 10 guntas of mulberry garden and great attention has to be bestowed in cultivation as the cocoons produced are sold only for breeding purposes excepting a very small portion which is fit for only reeling. In spite of the increased demand for seed cocoons the prices are very unfavourable for sale and which is primarily due to the cheap foreign silks sold in the Indian market against the indigenous silk. The Department of Sericulture are giving free of cost disease-free eggs selected for producing seed cocoons and also instructions every now and then as the officers inspect the crops. Also

Representations of the Sericulturists presented to the Members of the Indian Tariff Board during their visit to Channapatna Circle, on 30th June, 1938—contd.

Serial No.	Names of sericulturists and their addresses.	Nature of Representation.
<i>Bidadi Area—contd.</i>		the assistance is being given in finding market for the cocoons produced. With all this, are unable to reap a favourable return and hence pray protection be granted.
3. Mr. Ranganuthiah, Hirc-halli, Bidadi Hobli, Closepet Taluk.		Has been enlisted as a registered seed rearer by the Department of Sericulture since 15 years. There were six families who were sericulturists in this village several years ago. And now it is reduced to two as the prices for seed cocoons are so low that the industry was given up by force. In spite of the aid given by the Department [such as (i) supply of selected seed, (ii) timely instructions for cultivation of mulberry as well as rearings worms, (iii) disinfection of rearing houses when necessary and even the facilities to sell the cocoons produced], are unable to sell cocoons at a higher rate than Rs. 12 per 1,000 cocoons, though the demand for seed cocoons is steadily increasing. All the major crops are during summer and hence the cultivation expenses are not possible to lessen. This they are attending to and they are planting trees to bring down the cost of leaves. This requires a considerable number of years hence pray protection at your hands till such time.

Closepet Area.

1. Aided Graineur, Closepet . Started that the Aided Grainage at Closepet with the kind sanction of the Department of Sericulture in the year 1930, July and up to the year 1934 was only preparing Mysore layings, later permission being granted to prepare F₁ eggs. Have been doing it to my utmost ability to meet the demand in the area scheduled for jurisdiction, the total demand going up to four lakhs a year. During 1937-38 was able to prepare three lakhs after gradually building up work and improving the quality of seed as is indicated by the harvest made.

Representations of the Sericulturists presented to the Members of the Indian Tariff Board during their visit to Channapatna Circle, on 30th June, 1938—contd.

Serial No.	Names of sericulturists and their addresses.	Nature of Representation.
Closepet Area—contd.		Several topes are already being planted in this area and a few more are to be planted this half year, so that the cost of mulberry leaf may be reduced which forms about 80 per cent. of the cost of cocoons, takes at least 10 years. Until such period at least pray, protection be granted and Tariff raised on imported silks.
2.	Mr. Syed Jaffar Sab, on behalf of the sericulturists of Closepet.	82 families in Closepet (majority of them belong to Mohamadan community) are engaged in sericulture. There are about 11 acres and 13 guntas of mulberry garden in this town alone. Many of the rearers possess only very small holdings of garden. The increase in cocoon prices in 1937 gave an impetus to extend this industry. But a few months later the prices went down and is steadily declining. Hence the enthusiasm also waned as a result of not getting the proper return for all the troubles. The increased popularity of the F ₁ eggs now supplied in larger batches by the Government and Aided Grain-ages are due to the fact that a slightly more yield is got than in Mysore race and only to this extent the costs of production are reduced. Hence pray that protection be granted immediately so that they may be able to overcome the unhealthy competition set up in the market by foreign silks.
3.	Sericulturists of Closepet Taluk.	80 villages making about 650 families are sericulturists in this Taluk and there are about 620 acres of mulberry garden. Bidadi area is primarily producing seed cocoons and the rest of the Taluk only reeling cocoons. Ever since the decline in prices of silk the industry is dwindling and in spite of the recommendations of the previous Tariff Board, the protection given is inadequate. Though more and more cross-breed layings are being used, the costs of production have not been considerably lowered as to compete favourably with the foreign

Representations of the Sericulturists presented to the Members of the Indian Tariff Board during their visit to Channapatna Circle, on 30th June, 1938—contd.

Serial No.	Names of sericulturists and their addresses.	Nature of Representation.
<i>Closepet Area—concd.</i>		cheap silks. Mulberry trees will be planted on a large scale and the costs will be brought down considerably but requires 10-12 years. Until this, pray protection for a longer period than given at present.
4.	Reelers of Closepet town	There are about 20 reeling establishments with a total of about 75 charkas in this town. 50 to 60 thousand pounds of raw silk is produced and sold in the Bangalore market annually. Since 1936 the prices of silk have gone down and we are unable to find a market for the silk and hence put to great loss. This is mainly due to the large imports of silk to the Indian market which are selling very cheap. Hence pray protection be increased and for sufficiently long term.
5.	Sericulturists of Sugganahalli village, Closepet Hobli, Closepet Taluk.	There are 25 sericulturists in this village owning about 15 acres of mulberry in all. Are making avail of the assistance and immense help rendered by the Department of Sericulture by way of purchasing only examined seed, by attending to timely instructions given during rearing worms, examination of worms, disinfection of rearing houses, etc. In spite of these the main cost of cocoon production, viz., the cost of mulberry cultivation is not reduced at all. For this it takes considerable time and pray protection be granted till such period.
<i>Channapatna Area.</i>		
1.	Gulam Hussain Sahib, Banrikuppe, Closepet Taluk.	The cocoon prices which were as high as Rs. 30 to Rs. 35 a maund have gone so low, i.e., Rs. 5 to Rs. 6 that it is absolutely impossible to keep them going in this industry. Unless the cocoon prices go appreciably high, it is futile to pursue the industry. This can only be brought about by raising the Tariff on imported silks.
2.	Mr. Kalaningsiah, Vibhutigeri, Closepet Taluk.	Out of about 45 families in this village about 12 families including 5 A. K. families are engaged in mulberry cultivation and silkworm

Representations of the Sericulturists presented to the Members of the Indian Tariff Board during their visit to Channapatna Circle, on 30th June, 1938—contd.

Serial No.	Names of sericulturists and their addresses.	Nature of Representation.
<i>Channapatna Area—contd.</i>		
		rearing. There are about 8 acres and 27 guntas of mulberry garden. Cocoon prices are gradually sinking in recent years so that the living has become so difficult for them. Are using only F ₁ eggs supplied by the Department of Sericulture and are glad to say that they have been benefited by it, though to a small extent. Insufficient demand for indigenous silk, against the competition of cheap imported silks seem to be the main reason for the losses. Hence pray protection be granted.
3.	Raiyats of Mudalahallidoddi	Are put to great hardship owing to the fall in prices of cocoons, and silk produced by them so that they have been actually deprived of their food. Hence pray protection.
4.	Aided Graineur and Sericulturists of Thimmasandra, Kankanahalli Taluk.	Are engaged in this industry since a few decades and have passed through the best period and have now come to the worst period in the progress of this industry. Have been able to reduce the cost of cocoon and raw silk to a little extent. But the cheap imported silks are selling lower than their silk in the Indian market which deprives them the benefits of this trade. The industry is almost on the verge of decline. Hence pray protection.
5.	Mr. Naga Heggade, Anjanapura, Closepet Taluk.	About 16 families are engaged in sericultural industry in this village having an area of 11 acres and 6 guntas under mulberry cultivation. The slight increase in prices of silk and cocoons during 1937 tempted them to extend the industry by planting more mulberry. But the increase in prices was temporary and is now gradually the trade is declining. Hence the enthusiasm is also waning and putting them in a perilous state. Since two years they have been using only cross-breed disease-free layings supplied by Government or Aided Grainages only and find that they are actually get more yield and hence reduce their expenditure by a little extent. But the remuneration for their troubles is absolutely insufficient to

Representations of the Sericulturists presented to the Members of the Indian Tariff Board during their visit to Channapatna Circle, on 30th June, 1938—contd.

Serial No. Names of sericulturists and their addresses.

Nature of Representation.

Channapatna Area—contd.

give them a living owing to the steady fall in prices of silk which they presume is due to the cheap silk and silk goods imported from China and Japan. So pray that this competition be put an end to by giving them sufficient protection so that their silk finds a reasonable sale.

6. Mr. Krishna Gowda, Patel, Achalu, Closepet Taluk.

23 families have been pursuing this cottage industry and about 23 acres and 27 guntas are under mulberry cultivation. The area has slightly increased since 1936 owing to the cocoon prices going considerably higher. But since June, 1937, the prices have again gone down and the fluctuation in prices are proving disastrous to the industry. They find that their produce do not find a ready market and hence compelled to sell it at most unremunerative prices. In spite of the use of cross-breed laying supplied by the Government Grainages, and the higher yield they are harvesting their financial position has not improved and the industry is threatened with extinction. The fall in prices of silk may be primarily due to the dumping of cheap foreign silks selling so cheap in the Indian market. Pray that Tariff Board against the imported be raised sufficiently to give them protection.

7. Mr. Mohideen Sab of Kyluncha, Closepet Taluk.

About twenty country charkas are being worked in this village producing on an average of about 50 to 60 thousand lbs. of raw silk every year, all the silk being sold in Bangalore market. Since 1936 there is steady fall in price and their silks are sold at a very low price. Apart from this they have not other resource for their living and hence they are finding it very difficult to sell their goods against the cheap foreign silk. Hence pray on behalf of the raiyats of this village to give protection and save them from this plight.

Representations of the Sericulturists presented to the Members of the Indian Tariff Board during their visit to Channapatna Circle, on 30th June, 1938—contd.

Serial No.	Names of sericulturists and their addresses.	Nature of Representation.
<i>Channapatna Area contd.</i>		
8.	Messrs. Mir Azeezulla and others of Channapatna.	Representing that they are adopted to Silk Industry from the last 125 years. They were running more than 1,000 charkas in the town for silk reeling and that many Moham-medan families were mainly living upon the industry. After the year 1930, they lost lakhs of rupees due to the trade depression of silk and cocoons and that there are only about 100 charkas running in the town now. The Department of Sericulture have rendered much help for the development of the industry by starting aided grainage and supplying cross-breed disease-free layings which yield more silk. In the year 1932-33, the Tariff Board levied a small amount of duty on the foreign silk and this did not help them, as the costs of the foreign silks were proportionately reduced in the market. Therefore, they pray for the levying of enhancement of protection duty on the foreign silk and thus protect them and the silk industry in Mysore.
9.	Mr. Syed Salamulla, Silk and Silk waste Merchant, Channapatna.	Representing that he is a hereditary dealer in cocoons, silk and silk waste. That his parents had amassed properties out of the profits obtained in the trade and that he is involved in indebtedness and losing all the properties one after other on account of the keen competition of the foreign silk with their silk in the market and that it takes a longer time to further reduce the cost of production of mulberry leaf by raising mulberry topes and praying to give sufficient protection by levying suitable duty on the foreign silk imported to India.
10.	Mr. H. S. Suryanarayana Rao, Hunsanahalli, Channapatna Taluk.	Representing that he is a silk merchant living in Hunsanahalli an important sericultural village. He advances moneys to his customers and purchase silk from them and sells the silk through the commission agents at Bangalore. His silk is dwindled day and day due to the

Representations of the Sericulturists presented to the Members of the Indian Tariff Board during their visit to Channapatna Circle, on 30th June, 1938—contd.

Serial No. Names of sericulturists and their addresses.

Nature of Representation.

Channapatna Area—contd.

scarcity of buyers of his silk outside on account of the sale of foreign silk at a cheaper price. During 1937-38 he purchased about 9,400 seers of silk worth Rs. 24,500 of which 1,300 seers remain unsold, the purchase value of which is Rs. 3,900 and that the cost of silk has come down to Rs. 2-4 a seer and that he would incur a heavy loss and that these conditions have not been in frequent in trade. If the cost of production of silk has to be further reduced he says that the cost of mulberry leaf should come down and that would take a pretty long time to plant Topes and harvest the yield of leaf. He also says that if the present protection duty though inadequate had not been levied the industry would have been extinct and prays for levying a sufficient protection duty on the foreign silk imported to India.

11. Representation of the sericulturists of Moledoddi, Channapatna Taluk.

There are 1,200 people in the village and 40 acres under mulberry and produce 60,000 lbs. of cocoons. The Board levied a small duty on the foreign silk after their visits five years ago and helped them a little. The Government of Mysore have increased the number of grainages in the State and have enabled us to get cross-breed layings which yield more silk at a little less cost. But still, as the foreign silk price is in the same level, their silk cannot find a ready sale in the market with prices, even to the level of their cost of production and pray that further protection duty may kindly be levied on the foreign silk imported to India.

12. Representations of the Sericultural Co-operative Society, Moledoddi, Channapatna Taluk.

The Society was started in the year 1928-29 and they have given a statement of work done. The Tariff Board after their visit to these places five years ago, they looked into the conditions of the places and arranged to levy a small protection duty which was very small and did not practically give any relief to

Representations of the Sericulturists presented to the Members of the Indian Tariff Board during their visit to Channapatna Circle, on 30th June, 1938—contd.

Serial No. Names of sericulturists and their addresses.

Nature of Representation.

Channapatna Area—contd.

the sericulturists. It is not possible to lower the cost of production of mulberry leaf immediately. They have neither demand nor a profitable price for their silk and they are undergoing a continued loss in the industry. They pray for the leviation of sufficient protective duty on the foreign silk imported to India and thus save the silk industry in Mysore.

13. Representations of the sericulturists of Hongnur, Channapatna Taluk.

There are 220 houses in the village with 1,500 population, 40 acres under mulberry and 60,000 lbs. yield of cocoons. They represent that they have a very small percentage of relief after the visit of the last Tariff Board and their levying a small amount of duty on foreign silk. The Government of Mysore have increased the supply of cross-breed layings and have helped them to produce a little more silk at a lesser cost of production and that in spite of all these aids they cannot find market for their cocoons and silk even at the rate of their cost of production and hence they pray that the protective duty may be raised and extended for some more years.

14. Representations of the sericulturists of Sunnaghatta, Channapatna Taluk.

There are 50 houses in the village with 500 population and 20 acres under mulberry. The yield of cocoons in the village amounts to 30,000 lbs. They represent that they have a very small percentage of relief after the visit of the last Tariff Board and their levying a small amount of duty on foreign silk. The Government of Mysore have increased the supply of cross-breed layings and have helped them to produce a little more silk at a lesser cost of production and that in spite of all these aids they cannot find market for their cocoons and silk even at the rate of their cost of production and hence they pray that the protective duty may be raised and extended for some more years.

Representations of the Sericulturists presented to the Members of the Indian Tariff Board during their visit to Channapatna Circle, on 30th June, 1938—concluded.

Serial No.	Names of sericulturists and their addresses.	Nature of Representation.
<i>Channapatna Area—concluded.</i>		
15.	Mr. M. Channappa Mogenahalli, Channapatna Taluk.	There are 10 acres of land under mulberry cultivation in the village. There are 32 families engaged in Sericulture and 5,000 lbs. of cocoons are being harvested. The Tariff Board after their visit in 1932 levied a small amount of protective duty on foreign silk, even then, it has not been possible to fetch the old price for their silk, and this is due to the large importation of foreign silk. They have not been working even at a small profit although the Department of Sericulture has increased the number of grainages and the supply of cross-breed layings and praying for the grant of an adequate protective duty on the foreign silk imported to India.
16.	Mr. Thimmegowda of Sankalgera, Channapatna Taluk.	There are 157 houses in the village with a population of 873, 49 acres under mulberry, 91 sericulturists and yield of cocoons being 25,000 lbs. Representing that they are working the industry at a loss, in spite of the small protection granted and praying to grant a higher rate of protective duty on the foreign silk for some more years.
17.	Sericulturists of Kudur, Channapatna Taluk.	There are 233 houses and 1,579 population and 131 sericulturists with an annual production of 50,000 lbs. of cocoons. There are 100 acres of mulberry cultivation. Representing that they are working the industry at a loss, in spite of the small protection granted and praying to grant a higher rate of protective duty on the foreign silk for some more years.

Representations submitted by Mr. V. M. Rudrappa, Vice President, Municipal Council, Vadigenhalli, on behalf of the rayots of Vadigenhalli town in Devanhally taluk to the members of the Tariff Board.

This town consists of 1,024 living houses and the total number of population is 4,500. Fourteen families have undertaken the sericultural industry as their subsidiary occupation in this town. The area under Mulberry is 10 acres and 33 guntas as against 8 acres and 13 guntas in the previous year and thereby the extent has been increased to 2 acres and 20 guntas. I too have been experienced in the particular industry for the last 10 years. I have arranged by means of Electrical Irrigation Pump for the cultivation

of Mulberry cuttings for about one acre of my own land. I am confident also in saying that there would be still increase of Mulberry gardens in our town during the current year. It is an usual practice of cultivation in supplying the water by means of aring pumps.

For cultivating one acre of land, the probable cost which is to be incurred is Rs. 190 and the income expected to be derived is Rs. 205. As the rayots are assisted by their own family people in this work, the additional expenditure being lessened the income and the expenditure will be equal. When accounting the value of work done by their own people it can be presumed totally that the rayots are incurring loss instead of getting good profit in consideration of their work.

It was in vogue in this surroundings to rear only the Mysore Race Worms about 10 years back. Then for 100 disease-free layings, 40 to 45 pounds of raw cocoons were being harvested. After the year 1932, this practice being put to an end, the system of rearing cross-breed worms has become an existing practice which is now being encouraged highly. The layings being supplied by Government and the aided grainages, after careful examination, it is totally observed that the rayots are highly benefited from rearing cross-breed worms. For 100 cross-breed layings 50 to 60 pounds of raw cocoons are being produced. There is an aided grainage in this town and many in surrounding villages. These aided grainages are supplying sufficient layings in time to the rayots. Lot of inconveniences were felt for want of sufficient encouragement and steady market in silk industry. When these grievances were brought to the kind notice of Government of India during the year 1934, ever since there is given protection to this industry. In case the protection that is being given is stopped, there will be every likelihood of this industry being decayed.

Hence I pray that the Government shall be kind enough to continue the same measures of protection that is being adopted at least to an extent of 10 years by which time the industry will be improved.

Representation from an Aided Graineur, Closepet, dated the 30th June, 1938.

I, the undersigned, Aided Graineur, Closepet, beg leave to bring the following facts for favour of your kind perusal and sympathetic consideration.

I started with the kind permission of the Department of Sericulture, an Aided Grainage, to manufacture Mysore race and cross-breed disease-free layings as prescribed by the Department on 30th July, 1930. I was trained in this branch for a period of one year at Channarayana Government Grainage. From 1930-31 to the end of 1933-34, I confined myself only to the preparation of Mysore disease-free layings. It is only in the year 1934-35, I was permitted to prepare cross-breed disease-free layings for the use of my clients. My distribution is limited to the 12 villages in this taluk and its extent under mulberry cultivation comes to 250 acres. The demand for disease-free layings from my clients for the above area goes up to 4 lakhs a year.

The following brief statement indicates the progress of work done in my Aided Grainage, for the past 5 years.

The following brief statement indicates the progress of work done in my Aided Grainage, for the past 5 years:—

Year.	Quantity of D. F. L. supplied.	No. of rearers to whom D. F. L. supplied.	No. of villages where D. F. L. were supplied.
1933-34	9,192	17	8
1934-35	28,186	108	11
1935-36	88,421	314	12
1936-37	162,873	398	17
1937-38	291,018	714	27

The following is a comparative brief statement regarding the average yield of cocoons for 100 D. F. L. of both Mysore and cross-breed races:—

Year.	Average yield for Mysore D. F. L.		Average for cross- breed.	
	lbs.		lbs.	
1933-34	37.0		...	
1934-35	38.0		48.0	
1935-36	38.5		52.5	
1936-37	38.9		56.0	
1937-38	38.2		56.5	

Due to the fact that the silk-worm rearers are getting a fairly good return as regards the yield of cocoons when compared with Mysore races—and this is the main reason for over increasing demand for cross-breed disease-free layings year by year—I have been attempting to meet the entire demand of my clients. As I perceive, in spite of this improvement, the cost of production has not minimised. It is entirely due to high cost of production of mulberry leaves which goes up to 80 per cent. of the total cost of production of raw cocoons. To minimise the cost of production of mulberry leaves, we have been impressed by the Departmental Officers, to grow mulberry trees in place of bush mulberry. A beginning has already been made and few mulberry plantations (topes) have sprung up in this taluk and arrangements have already been made to plant few more plantations during the month of July, 1938. In my opinion, I think, it requires about 10 to 12 years to bring a considerable area under tree mulberry, and it is then only we shall be in a position to bring down the cost of production of mulberry leaves considerably. Until such period, we shall not be and impossible to be in a position to face the unfair competition of any foreign silk that may be imported into India.

Therefore, I appeal to your sympathetic consideration the above facts and redress our difficulties by imposing enough tariff on silk and silk finished goods that may be imported into India, for a period of about 15 years and thus allay our present critical state of Silk Industry in these parts, and for which act of kindness, on your part, I shall be ever grateful and thankful to you sirs.

Representation from certain Aided Graineurs and Sericulturists of Timsandra in Kankanhalli Taluk of Mysore State.

We, the Aided Graineur and Sericulturists of Timsandra, Kankanhalli Taluk, beg to bring to your kind notice the following grievances, requesting you to kindly redress them and relieve us of the present crisis in Silk Industry through which we have been passing.

Dear Sirs, we have been carrying on Silk Industry for the last 4 or 5 Decades. Since the past two or three years we have been able to reduce the cost of production of Cocoons and Silk to a considerable extent; but owing to keen competition and dumping of Raw Silk and finished goods from Japan and China, we have not been able to sell our produce at profitable rates. The prices have fallen down to a great extent. The industry is on the verge of decline, and we are financially hard hit on that account.

Hence, we approach you, dear Sirs, with a humble request to save us from the crisis and help us out by way of granting sufficient protection to the Silk Industry in our State.

For which act of kindness and generosity, we will pray for your long life and prosperity.

Representation from certain Silk Charkha owners of Channapatna, Mysore State, dated the 30th June, 1938.

We the Silk Charkha owners of Channapatna most humbly beg to bring the following few lines for your kind and sympathetic response and early consideration.

Since 125 years we are attached to this petty industry. In Channapatna more than 1,000 charkas were running. By this business 3,000 Muslims of the town and thousands of Hindu families of the Taluk were supported in earning their livelihood. Not only here but throughout the state this industry was in flourishing condition up to the year 1920, whose statistical account you might have got from the Department of Sericulture. Thanks to the Government of Mysore for having supported the Rayots by opening Sericulture Department by supporting the rearers by introducing aided grainage, giving them necessary instructions and showing new methods of cross-breed cocoons.

Now coming to our Silk Charkha Reeling condition, we beg to state that after 1920th year in India, China and Japan silk imported in large quantities. On account of its importation and cheap prices we suffered a loss of lakhs of rupees. In the year 1932-33 your learned Committee visited our state and levied a petty tax on the foreign silk. By this we expected that our industry would be supported. But the foreigners again lessened the prices. Sirs, now only 100 Silk Reeling Charkas running in the town, but the business remains in loss. Thousands of Muslims owing to the loss and failing of this industry are remaining without work.

Hence we request your honours to kindly redress our grievances by increasing the tax on the foreign goods.

Thanking you in anticipation.

Representation of Mr. Syad Salamulla, Silk and Silk Waste Merchant, Channapatna, dated June, 1938.

I am a hereditary dealer in Cocoons, Silk and Silk Waste, in Channapatna. In the olden days when the prices of silk were high, my parents had amassed properties such as lands and houses in Channapatna. Now since the last 6 to 7 years the silk market has fallen down very much due to the dumping of foreign and artificial silk which are sold at a very low price. On account of this keen competition I am forced to sell my silk and silk waste at a lower rate than my actual cost of production, which not only made me a prey for indebtedness but also has made me to gradually lose my ancestral properties one after the other.

In order to produce cocoons at still a lower rate, the cocoon producers have to lower the cost of production of mulberry leaves, which will not be possible until mulberry topes are raised. To raise topes, harvest leaves from topes, it takes a pretty long time, like 10 years.

Under these circumstances, I pray the levy of a protective duty on foreign silks imported into India for some more years, until we can adjust ourselves to lower the cost of production of mulberry leaves.

Representation of Mr. H. S. Suryanarayana Rao, Silk Merchant, Channapatna Taluk, Hunsanahalli, dated the 30th June, 1938.

I am a Silk merchant. I live in Hunsanahalli, an Important Sericultural Village in Channapatna Taluk. I am dealing in Raw Silk. I purchase silk for cash from my customers to whom I have advanced moneys and send it to commission agents at Bangalore for sale. The sales are dwindling day by day because there are no buyers from outside, owing to the availability of cheaper and well reeled silk from China and Japan. During the year 1937-38 I purchased about 9,400 seers of raw silk costing about Rs. 24,500 of which 1,300 seers of silk remain unsold, the purchase value being Rs. 3,900. Now the rates have declined to Rs. 2.4 per seer resulting in a heavy loss. These conditions have been not infrequent in the Trade.

The cost of production may be effectively reduced by planting mulberry topes only, as the cost of leaf forms the greater part of the cost of cocoons.

Now 95 per cent. of the mulberry garden are bush gardens. Our Sericulturists are very poor and at this stage they do not get even sufficient returns for their labour.

Mulberry topes will begin to yield well only in about 10 years. It is, therefore, a matter of time. To enable us to reduce the cost of production of silk, I pray that a sufficient and higher protection be kindly granted. The Tariffs which have been already levied on imported silk is not at all sufficient and foreign competition is gaining. At this rate we are unable to face the Foreign competition. Had this protection, though inadequate, not been levied our Industry would have been extinct by now.

I request to kindly consider and recommend to the Government of India the levy of a higher Tariff on the Foreign imported silk, thereby protecting our Sericultural Industry.

(3) *Letter No. Camp 151, dated the 27th/28th July, 1938, from the Superintendent of Sericulture in Mysore.*

I have the honour to enclose herewith replies received from the following gentlemen regarding the General Questionnaire issued by the Indian Tariff Board. The replies are in Kannada and I enclose four copies of the rough translation in English also.

The receipt of the same may kindly be acknowledged.

1. Mr. G. Narayana Reddy, Aided Graineur, Gidnahalli, Chickballapur Taluk.

2. Mr. M. Shankarappa, Aided Graineur, Mallahalli, Sidlaghatta Taluk.

3. Messrs. D. Aswatha Naraniya and H. Syed Hussain Dahib, Sidlaghatta.

4. Mr. Abdul Jabbar, Reeler, Kaiwara, Chintamani Taluk.

Replies of Mr. G. Narayana Reddy, Aided Graineur, Gidnahalli, Chikkaballapur Taluk, to the General Questionnaire issued by the Tariff Board.

1. Sericulture is subsidiary to Agriculture.

The area under mulberry in my village was 15 acres and 5 guntas in 1933-34 and 26 acres and 20 guntas in 1937-38.

26 Families out of 30 families in my village are sericulturists.

2. Sericulture is divided into three parts:—

(1) Mulberry cultivation and silkworm rearing.

(2) Reeling.

(3) Marketing.

The silkworm rearer requires very little capital and whatever money he wants, he borrows from the reeler. Almost all the items of work are attended to by the members of the family.

3. Yield of cocoons and value in my village is noted below:—

Year.	Cocoons in units of 8 lbs.	Value. Rs.
1933-34	5,280	1,440
1937-38	16,960	5,545

4. The period of rearing is noted below:—

	Days.	Days.
(1) Mysore race	30	to 32
(2) Chinese and Japanese	24	„ 26
(3) Cross-breeds	23	„ 27

5. Most of the sericulturists in my area rear cross-breeds. They have to rear Pure Mysore race when they cannot get a sufficient supply of cross-breed layings. A few selected sericulturists rear Pure Foreign races for seed issued by Government grainages for producing seed cocoons only.

6. No separate rearing houses are built. A portion of the dwelling house is utilised for rearing worms. Ventilation has been improved by providing windows and flooring has been improved to prevent dust. Mostly examined seed is used for rearing.

The cost of appliances required for rearing one oz. of seed is noted below:—

Appliances.	Cost.	Period for which it lasts.
	Rs. A.	
1. Stand—1	8 0	4 to 5 years.
2. Trays—15	7 8	2 „ 3 „
3. Knife—1	0 12	1 „ 2 „
4. Chopping board—1	1 0	2 „ 4 „
5. Gunny bags—2	0 12	1 year.
6. Lamp	0 4	1 month.
7. Stone supports for stand—		
4	2 0	Long time.
8. Rat trap	0 4	3 years.
9. Knife holder—1	0 12	2 to 4 years.
Total	21 4	

Chandrikes are usually got on hire when required.

Race of worms.	Rearing period.		No. of cocoons. per lb.
	Days.	Days.	
7. 1. Mysore	30 to	32	550 to 650
2. Cross-breed	23 „	27	400 „ 500
3. Chinese and Japanese	24 „	26	400 „ 600

8. During the last four or five years, the ryots have been increasing the use of cross-breed seed and examined seed. As a result the loss of crops due to bad seed has been minimised. The yield of cocoons per 100 layings has been increased from 30 to 35 lbs. to 50 to 60 lbs. by using cross-breeds.

9. The use of cross-breed layings is on the increase.

The Mysore cocoons required for preparing cross-breed layings are obtained from reputed seed centres in Mysore where the Government has systematised the work of seed rearsers. The examined layings required by these selected seed rearsers are given free of cost by Government grainages.

The selected seed rearsers of Pure Foreign races are also given disease-free layings free of cost. The cocoons of the pure foreign races are bought by Government and aided grainages for seed purposes only.

The cost of producing one oz. of seed in my Aided Grainage is noted below:—

Year.	Cost of producing one oz. of seed.		Sale price.	
	Rs.	A. P.	Rs.	A. P.
1933-34	0	14 0 (Pure Mysore)	0	11 3
1934-35	1	4 9 (Cross-breed)	1	6 6
1935-36	1	4 10	1	6 6
1936-37	1	4 10	1	6 6
1937-38	1	4 10	1	6 6

10. There is no legislation yet. But the sericulturists have realised the advantages of using examined seed and are anxious to go in for disease-free layings only. The question of passing a regulation is engaging attention.

11. Multivoltines only, 6 crops in a year. 40 to 45,000 worms in one ounce of seed. I note below the quantity of disease-free layings prepared in my aided grainage during the last five years:—

Year.	Pure Mysore layings.	Cross-breed layings.	No. of ounces.
1933-34	263,699	...	1,883
1934-35	125,423	24,496	1,070
1935-36	17,971	316,852	2,391
1936-37	30,550	314,639	2,465
1937-38	22,356	421,809	3,165

12. Government import foreign race seed, make them hatch like multivoltines by artificial methods and supply to the selected rearers such seed suited to seasonal conditions for producing seed cocoons.

13. The method of work in my grainage is the same as in Government grainages. The method is described in detail.

14. As the sericulturists are using more and more of examined seed only the loss of crops due to bad seed is being reduced year by year. The loss of worms during rearing is also being reduced. The supply of examined seed from Government and aided grainages is being increased year by year. The sericulturists are gradually adopting the improved methods of rearing suggested by the Government.

15. The worms are fed on mulberry leaves only. Mulberry is grown on the rearer's own land. There is no instance of any rearer depending upon purchased leaves only for conducting rearings.

The cost of planting one acre of bush mulberry (deep well irrigated) is noted below:—

	Rs.	A.
1. Digging	30	0
2. Levelling	4	0
3. Manure	32	0
4. Transport and manuring	5	0
5. Preparing lines for planting	1	4
6. Cost of cuttings	35	0
7. Preparing nursery	3	0
and		
Planting	3	0
8. Watering	22	0
Total	135	4

Annual recurring expenditure per acre of bush mulberry.

	Rs. A.
1. Land revenue	4 0
2. Digging	16 0
3. Pruning	6 0
4. Manure	30 0
5. Manuring, etc.	5 0
6. Weeding	1 8
7. Irrigation	70 0
8. Appliances for irrigation	15 0
9. Miscellaneous	5 0
Total	<u>152 8</u>

The bushes last from 15 to 18 years. Six crops are harvested. The total yield of leaf is about 12,000 lbs. at the rate of 2,000 lbs. per crop.

About 1,200 lbs. (with stem) are required to rear an ounce of seed. The cost is Rs. 15-4.

16. (a) The raising of mulberry trees and the use of groundnut cake and ammonium sulphate are being advocated. Many people are installing electric pumps for irrigation purposes.

(b) Though I have planted a mulberry tree I have not got full experience of the same as the trees are still very young.

17. (1) The cost of leaves to the breeder of worms is the amount spent on mulberry cultivation and is about one rupee for 80 lbs. Mulberry leaves are not grown for sale only.

(2) Expenditure and receipts from mulberry and sugarcane.

Year.	Mulberry Expenditure.	Probable receipts.	Sugarcane Expenditure.	Receipts.
	Rs.	Rs. A.	Rs.	Rs.
1933-34	152	168 12	170	180
1934-35	152	168 12	170	180
1935-36	152	168 12	170	180
1936-37	152	168 12	170	185
1937-38	152	168 12	170	185

18. No change in position.

19. It is possible to reduce costs by using better manures, by using seedlings for bushes, by raising mulberry trees and by rearing cross-breed worms.

21. The yield per oz. of cross-breed seed is from 80 to 90 lbs. and from an acre of bush mulberry per year from 800 to 900 lbs. multivoltines. It was difficult to harvest 40 to 45 lbs. of cocoons per oz. formerly but now we can get about 80 to 90 lbs. of cocoons per oz. of hybrid seed.

22. The Sericultural Department produce cross-breed seed and Mysore seed in Government grainages and has given facilities to aided grainages to prepare disease-free layings on a large scale.

The cost of rearing from one ounce of cross-breed seed is noted below:—

	Rs. A. P.
1. Seed	1 6 6
2. Extra labour	3 0 0
3. Cost of food for worms	15 4 0
4. Appliances	2 0 0
5. Miscellaneous	0 10 0
Total	22 4 6

24. The prices obtained for cross-breed cocoons per lb.:—

Year.	Cross-breeds.	
	Maximum.	Minimum.
	As. P.	As. P.
1933-34	4 6	3 0
1934-35	4 9	3 3
1935-36	5 0	3 9
1936-37	6 0	4 6
1937-38	6 0	4 6

25. The rearer does not keep his cocoons for reeling. He has to sell away the cocoons as he cannot afford to wait till prices improve and as the moths may emerge and spoil the cocoons.

69. (a) The duty should be such that all the works in the industry get adequate remuneration for their material and labour.

(b) As at present.

(c) Not less than 15 years.

The sericulturists are illiterate and poor. They cannot afford to spend money on improvements unless they get a better return. They take a long time to adopt the improved methods. Raising of mulberry trees also takes a long time. It would take some years before arrangements are made to supply cross-breed layings to all the sericulturists. The starting of filatures to produce high grade silk from our cocoons will also take considerable time.

72. After granting Protection in 1934 the prices for our cocoons and silk went up for a few months in 1936 and 1937. A large number of people who had given up the industry took to it again when the prices went up. If adequate protection is granted for at least 15 years, the cost of production can be reduced by about 40 per cent. by effecting improvements in mulberry cultivation, rearing and reeling.

Replies furnished by Mr. M. Shankarappa, Aided Graineur, Mallahalli, Siddaghatta Taluk, to the General Questionnaire issued by the Indian Tariff Board.

1. Sericulture is subsidiary to Agriculture. The area under mulberry in my village in 1933-34 was 5 acres and 15 guntas, now it is 6 acres and 30 guntas. Ten families are sericulturists in my village.

2. Sericulture can be classified as follows:—

- (1) Mulberry cultivation and silk-worm rearing.
- (2) Silk reeling.
- (3) Marketing of silk.

Not much capital is required for mulberry cultivation and silk-worm rearing. Whatever money is required is borrowed from the reeler. The family members attend to almost all the items of work.

3. Yield of cocoons and their value during the last five years:—

Year.	Yield of cocoons in lbs.	Value in Rupees.
		Rs.
1933-34	2,360	590
1934-35	2,750	709
1935-36	3,300	911
1936-37	3,750	1,230
1937-38	4,320	1,419

4. I am not aware of the silk content. I note below the number of rearing days:—

	Days.	Days.
Mysore	30	to 33
Chinese and Japanese	23	„ 26
Cross-breeds	24	„ 26

5. Sericulturists now rear mostly hybrids. I sometimes rear Mysore race and the Pure Chinese and Japanese races obtained from Government Farms for seed purposes.

6. The silk-worms are reared in a portion of the dwelling house and no separate rearing houses are constructed. Ventilation has been improved by providing windows. The flooring has been improved to avoid dust. The distance between tray and tray has been increased in stands. More space is given to worms in trays to avoid over-crowding.

To rear one ounce of seed, the following appliances are required:—

Name of appliance.	Cost.	Period for which it will last.
	Rs. A.	
Stand—1	8 0	4 to 5 years.
Trays—15	7 8	2 „ 3 „
Knife—1	0 12	1 „ 2 „
Chopping board—1	1 0	2 „ 4 „
Gunny bags—2	1 0	1 year.
Supports for stand—4	0 8	6 months.
Rat trap—1	0 6	2 to 3 years.
Total	19 2	

Chandrikes are not usually stocked. They are obtained on hire when required.

Race.	No. of days taken from start to finish.	No. of cocoons per lb.	Denier.
Mysore	30 to 33	500 to 600	No information.
Cross-breed	24 „ 26	400 „ 500	do.
Chinese and Japanese	23 „ 26	400 „ 500	do.

8. The sericulturists have been rearing mostly cross-breed worms these three or four years. They have been using more and more of disease-free layings. As a result the loss of crops due to bad seed has been minimised.

The yield per 100 layings was from 40 to 45 lbs. formerly. Now, it is from 50 to 60 lbs. per 100 layings.

9. The sericulturists have been using cross-breed seed these three or four years.

The Mysore seed cocoons required are obtained from seed areas where Government have systematised the work.

The foreign race layings required are got free from Government Grainages. Selected people rear these worms and sell the cocoons to Government and aided grainages to prepare cross-breed layings.

The cost of producing one ounce of seed in my grainage is noted below:—

Year.	Cost of production.		
	Rs. A. P.		
1933-34	0	11	8
1934-35	1	10	2
1935-36	1	8	6
1936-37	1	4	8
1937-38	1	5	6

10. There is no legislation, but the Government have arranged for increased availability of examined seed in Government and aided grainages. The sericulturists are anxious to use examined layings only.

11. Multivoltine race. 42 to 45 thousand cocoons in one ounce of seed. Disease-free layings prepared in my Grainage during the last five years:—

Year.	Mysore race.	Cross-breed.	Total No. of layings.
1933-34	209,231	...	209,231
1934-35	7,103	...	7,103
1935-36	12,157	49,041	61,198
1936-37	30,649	212,556	273,205
1937-38	12,197	319,503	331,700

12. Government obtain seed from foreign countries and issue the seed to selected rearers after determining the races best suited to each season.

13. The same system of work in Government Grainages regarding selection of cocoons, etc., is followed in my grainage also.

14. The loss of crops due to bad seed has been minimised due to increased availability of examined seed. The sericulturists are gradually adopting the suggestions given by the Sericultural Department in Mysore with regard to the improved methods of rearing, etc.

15. The silk-worms in Mysore are fed with mulberry leaves only. Mulberry is generally grown by the sericulturists on their own lands. There are very rare, in fact, no instances of a rearer depending mainly on purchased leaf supply.

The cost of planting an acre of bush mulberry—Deep well irrigated, is noted below:—

Items of expenditure.	Amount.
	Rs. A.
Digging	30 0
Levelling	5 0
Manure	30 0
Transport of manure	4 8
Application of manure	1 4
Lining	1 0
Cost of cuttings and transport, etc.	43 12
Planting	2 8
Watering	25 0
Replanting failed pits	0 8
Total	143 8

Annual Recurring Expenditure per acre.

	Rs. A.
Land revenue	4 0
Digging	15 0
Pruning	7 8
Manure and manuring	35 12
Weeding	1 14
Irrigation	75 0
Miscellaneous, including repairs to irrigation equipment, etc.	18 0
Total	157 2

Bush mulberry lasts from 15 to 20 years. From one acre about 12,000 lbs. of leaves are obtained in a year including weight of stems. Six harvests. 1,200 lbs. of leaves with stems required for one ounce of seed. Cost Rs. 15-11.

16. (a) We are gradually adopting the suggestions of the Sericultural Department with regard to use of ground-nut oil cake, ammonium sulphate as manures, to raise bushes with seedlings and to raise mulberry trees.

(b) I have no experience of raising mulberry topes or trees.

The annual expenditure on an acre of bush mulberry is Rs. 157-2.

17. (1) On rare occasions, when mulberry leaves in excess were sold or bought on account of shortage, the rearer has paid about one rupee per bundle of 80 lbs.

(2) I note below the expenditure and receipts from an acre of mulberry and sugarcane:—

Year.	Mulberry.		Sugar Cane.	
	Expenditure.	Receipts by sale of cocoons.	Expenditure.	Receipts.
	Rs. A.	Rs.	Rs.	Rs.
1933-34 . . .	157 2	210	165	175
1934-35 . . .	157 2	210	165	175
1935-36 . . .	157 2	210	165	200
1936-37 . . .	157 2	210	165	200
1937-38 . . .	157 2	210	165	240

18. The position has not improved.

19. Use of ground-nut oil cake and ammonium sulphate as manure, raising of gardens with seedlings and planting mulberry trees.

21. The yield from one ounce of cross-breed seed is from 80 to 85 lbs. The yield from one acre of garden is 800 to 900 lbs. of cocoons per year if cross-breed layings are used.

The yield was from 40 to 45 lbs. per ounce prior to 1934.

22. The Government have arranged for the increased supply of cross-breed layings through Government and aided grainages. The sericulturists are anxious to use cross-breed layings.

23. The cost of rearing one ounce of seed is given below:—

	Rs. A. P.
Cost of seed . . .	1 6 6
Extra labour . . .	3 0 0
Cost of food of worms . . .	15 11 0
Appliances . . .	2 4 0
Miscellaneous . . .	0 8 0
Total . . .	22 13 6

24. The price of one thooka or 8 lbs. of cocoons:—

Year.	Maximum for 8 lbs.	Minimum for 8 lbs.
	Rs. A.	Rs. A.
1933-34	2 8	1 6
1934-35	2 10	1 10
1935-36	2 14	1 11
1936-37	3 3	2 0
1937-38	3 3	2 4

25. The rearer has to sell away the cocoons as soon as they are ready.

69. (a) The duty should be such that the rearer should get adequate remuneration for his and his family's labour.

(b) In the present form of specific duty.

(c) 15 to 20 years. 98 per cent. of the sericulturists are illiterate. It requires at least 15 to 20 years before all of them can adopt the improved methods advocated by the Sericultural Department.

72. Many people who had given up the industry took to it again when prices went up in 1936.

74. If protection is granted for 15 to 20 years the following reduction can be effected:—

35 to 40 per cent. reduction in rearing, reeling, etc.

Means to reduce the cost of leaves:—

1. Growing mulberry trees.
2. Planting bushes with seedlings.
3. Growing better and higher yielding varieties of mulberry.
4. Increasing yield by applying suitable manures.

In Rearing—

1. Reducing losses due to bad seed.
2. By rearing higher and quicker yielding cross-breed worms.

Replies to the General Questionnaire given by Messrs. D. Aswatha Naraniah and H. Syed Hussain Sahab of Sidlaghatta.

1. Silk industry is existing in Sidlaghatta town and Taluk for over 150 years. The area under mulberry is noted below.—

	Acres.	Gts.
1933-34	792	34
1934-35	803	20
1935-36	780	9
1936-37	963	9
1937-38	1,040	34

2. Silk industry is divided into—

- (1) Mulberry cultivation and silkworm rearing.
- (2) Reeling.
- (3) Marketing of silk.

Mulberry cultivation and silk-worm rearing are subsidiary to agriculture. Not much capital is required. The rearer generally borrows from the reeler.

The reelers have one to five charkas. Cocoons are bought generally through brokers who are paid a commission of one anna for 8 lbs. Those who buy cocoons direct avoid brokerage. The silk reeled is sold through Silk Merchants who get a commission of 1½ annas to 3 annas per lb. of silk. The reelers get advances from Silk Merchants.

The silk merchants have their own capital and borrow also. They get commission from reeler as well as buyers of silk.

3. Information regarding output of cocoons and value:—

Year.	Production of cocoons in lbs.	Value.	Production of silk.	Value.	Maximum attainable cocoons.	Maximum attainable raw silk.
		Rs.	lbs.	Rs.	lbs.	lbs.
1933-34 .	277,200	51,475	19,800	85,400	316,800	22,600
1934-35 .	321,200	87,825	23,800	1,07,100	361,350	26,800
1935-36 .	351,000	1,01,420	28,500	1,27,400	390,000	31,700
1936-37 .	481,500	1,54,125	38,500	2,17,300	529,650	42,400
1937-38 .	572,550	1,92,325	47,700	2,50,500	624,000	52,400

4. Pure Mysore and cross-breed worms are reared. We have no information on other points.

5. Generally cross-breed worms are reared in this area.

6. There are no separate rearing houses. A portion of the dwelling house is used for rearing. Stands, trays, etc., are required for rearing.

Stands last for 5 to 8 years, trays from 2 to 3 years, chandrikes are not generally stocked by sericulturists. They are taken on hire when needed.

Ventilation has been improved. The rearing houses are cleaned more often than before. Dust is avoided. More space is given between tray and tray in stands. Chandrikes have been improved.

	Race.	Rearing period.	No. of cocoons.
		Days.	per lb.
7.	1. Mysore race . . .	30 to 33	500 to 600
	2. Cross-breed . . .	23 „ 25	400 „ 450

8. The sericulturists have been using more and more of examined seed and cross-breed seed. The loss of crops due to bad seed is minimised. The yield of cocoons per unit of eggs reared is also more now. The yield per 100 layings was from 35 to 40 lbs., now it is 50 to 60 lbs. per 100 layings.

9. Indigenous race seed supply is from Government and aided grainages.

The sale price of cross-breed and Mysore seed has been fixed by Government at Rs. 1-6-6 and As. 11-3 per oz.

Government have systematised the work in reputed seed centres in Mysore and have given many facilities and concessions to these seed rearers. The Mysore seed cocoons required are obtained from these centres mostly.

10. The availability of examined seed has been increased by starting more and more Government and aided grainages.

11. Six crops in a year. 40 to 45 thousand cocoons in one ounce. 7,500 ounces required for the area.

12. Chinese and Japanese races are required in Government Farms.

13 & 14. As examined seed is used more and more, loss of crops due to pebrine has been very rare. The use of rice husk for cleaning worms and the frequent cleaning of trays, stands, etc., the crops are satisfactory now-a-days.

15. The worms are fed with mulberry leaves only. Mulberry is grown on the rearer's own land.

The cost of planting one acre of bush mulberry is noted below (Deep well irrigated):—

	Rs.
1. Digging, levelling, etc.	50
2. Manure and manuring	60
3. Cost of cuttings, transport, etc.	15
4. Planting	10
5. Watering	30
6. Weeding, etc.	10
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Total	175
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Recurring Annual Expenditure per year.

	Rs.
1. Land revenue	7
2. Digging	20
3. Manure and manuring	35
4. Pruning	10
5. Weeding and stirring up the soil	20
6. Repairs to equipment	15
7. Irrigation	85
Total .	192

The yield of leaf is about 14,400 lbs. including weight of stem. The cost of production of 1 lb. of leaf with stem is 2·5 pies. 1,400 lbs. with stem required for one ounce of seed. The cost would be Rs. 19·3. Life of bush 15 to 20 years.

16. (a) Some sericulturists have been using ground-nut oil cake and ammonium sulphate as manure for mulberry. The yield of leaf is more.

(b) It is not possible to grow mulberry trees on a large scale as the average holdings are limited.

17. (1) The cost of food for worms is about Rs. 200 as already stated in reply to question No. 15.

(2) The expenditure and receipts for sugarcane and potato per acre is given below:—

Year.	Sugar cane.		Potato.	
	Expenditure.	Receipts.	Expenditure.	Receipts.
	Rs.	Rs.	Rs.	Rs.
1933-34 . .	165	175	180	200
1934-35 . .	165	175	180	175
1935-36 . .	165	200	180	150
1936-37 . .	165	200	180	150
1937-38 . .	165	240	180	200

18. No change in prices.

19. By using artificial manures and by growing mulberry trees the cost of food for worms would be reduced to some extent.

20. Multivoltine race from one oz. of cross-breed seed yield of cocoons is from 80 to 90 lbs. From one acre about 800 to 900 lbs. per year now. Formerly from one oz. of seed we were getting 45 to 55 lbs. of cocoons.

22. No information.

23. (b) Expenditure for rearing one oz. of seed:—

Year.	Extra labour.	Cost of food for worms.		Appliances.	Miscellaneous.	Seed.			Total.		
		Rs.	A.			Rs.	A.	P.	Rs.	A.	P.
1933-34 .	3	19	3	2	8	1	6	6	28	1	6
1934-35 .	3	19	3	2	8	1	6	6	26	1	6
1935-36 .	3	19	3	2	8	1	6	6	26	1	6
1936-37 .	3	19	3	2	8	1	6	6	26	1	6
1937-38 .	3	19	3	2	8	1	6	6	26	1	6

24. Sale Price of cocoons:—

Year.	Maximum per lb.	Minimum per lb.
	As. P.	As. P.
1933-34	5 0	4 0
1934-35	4 10	4 0
1935-36	5 9	3 5
1936-37	6 5	4 0
1937-38	6 3	4 3

25. The rearer sells the cocoons as soon as they are ready. He cannot afford to wait till prices suit him as the moths will emerge and render the cocoons unfit for reeling if kept for more than 8 days.

Sale Price for 8 lbs. of Cocoons.

	Rs. A.	Rs. A.
1933-34	2 0	to 2 8
1934-35	2 0	„ 2 7
1935-36	1 11	„ 2 14
1936-37	2 0	„ 3 3
1937-38	2 2	„ 3 2

The yield of silk depends upon quality reeled. Roughly 7 lbs. of silk and 3½ lbs. of waste are got from 100 lbs. of cocoons.

26. Reeling is done in country charkas only.

27. 20 lbs. of cocoons can be reeled in a day in a charka. Expenditure per day per charka is noted below:—

	Rs. A.
1. Cost of Cocoons	6 9
2. Labour	0 12
3. Fuel	0 6
4. Water	0 2
5. Supervision	0 2
6. Sales expenses	0 5
7. Miscellaneous	0 5
Total	8 9
Less cost of waste	0 4
Yield 1½ lbs.	8 5
Cost of one lb. of silk	4 12

28. The cost of equipping a country charka is about Rs. 11-4. Lasts for 5 to 6 years with repairs.

29. Expenditure per charka per day:—

Items of Expenditure.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A.
Cost of Cocoons .	5 10 0	5 9 0	5 11 3	6 7 9	6 9
Labour . .	0 12 0	0 12 0	0 12 0	0 12 0	0 12
Fuel . .	0 6 0	0 6 0	0 6 0	0 6 0	0 6
Water . .	0 2 0	0 2 0	0 2 0	0 2 0	0 2
Supervision .	0 2 0	0 2 0	0 2 0	0 2 0	0 2
Sales expenses .	0 5 0	0 5 0	0 5 0	0 5 0	0 5
Miscellaneous .	0 5 0	0 5 0	0 5 0	0 5 0	0 5
Total .	7 10 0	7 9 0	7 11 3	8 7 9	8 9
Less cost of waste . .	0 1 8	0 1 8	0 2 10	0 3 10	0 4
Cost of 1½ lbs. silk . .	7 8 4	7 7 4	7 8 5	8 3 11	8 5
Cost of 1 lb. of silk . .	4 4 9	4 4 3	4 5 2	4 11 5	4 12

33. No accurate information is available regarding number of families.

34. Labour is available. Can be trained well in 6 months.

35. (1) Eight annas a day for reelers and four annas a day for turner.

(2) No.

(3) The Sericultural Department has given facilities for training people free of cost.

40. Twisting is not done in this area.

42. The reelers have been paying attention to remove defects, to knot the broken ends and to improve the quality as far as possible.

45. Raw silk is used for silk fabrics. Gold lace, etc.

47. No weaving is done locally. All raw silk is sold in Bangalore, Gadag, Hubli, Conjeevaram, etc. The waste was going out of India but now the export is reduced.

48. Yes.

61. 3½ lbs. waste per 100 lbs. of cocoons.

62. Rs. 3 per maund in 1933-34 and Rs. 9 to Rs. 10 per maund in 1937-38. At present Rs. 9-6 per maund of 28 lbs.

63. The rearing of cross-breeds has increased in this area.

64. A Spun Silk Factory has been started at Channapatna with Government assistance. This has raised the price of silk waste.

69. (a) The present duty should be further increased so as to raise the selling price of foreign silks to admit of our silk being sold at higher rates.

(b) Just as at present.

(c) 10 to 15 years at least as the sericulturists are illiterate and require time to adopt improved methods, etc.

72. People who had given up the industry took to it again since 1936 when prices went up.

73. Government have started more Government and aided grainages to increase the supply of examined seed. Sapplings for trees are given free of cost and bonus also is given on mulberry trees grown by sericulturists.

74. (1) It is possible to reduce cost of production by about 40 per cent. if adequate protection is given for a sufficiently long period.

(2) It is possible to effect reduction in the cost of mulberry leaves, rearing and reeling.

(3) (a) growing mulberry trees, (b) planting seedlings, (c) planting higher yielding varieties of mulberry, (d) using better manures, (e) using examined seed and seeds of higher and quicker yielding races.

Replies furnished by Mr. Abdul Jabbar, Reeler, Kaiwara, Chintamani Taluk, to the General Questionnaire of the Tariff Board.

24. One lb. of cross-breed cocoons costs As. 5. The price ranged from As. 4 to As. 5-3 a lb. these five years.

25. The cocoons are usually sold away to the reelers.

26. All the reeling in this taluk is done in country charka.

27. I have no accounts. About 12 lbs. of hybrid cocoons are required to produce one lb. of raw silk. The silk is sold to merchants in Chintamani.

28. The cost of equipping a country charka is noted below:—

	Rs. A.
1. Copper basin	6 0
2. Reel	5 0
3. Pots for hringing water	0 2
4. Gunny bags	0 8
5. Rope	0 6
6. Thread, oil, etc.	0 2
Total	12 2

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A charka lasts for about 5 years with repairs.

29. I have not maintained accounts.

Works cost per Charka per day.

	Rs. A.
1. Cost of cocoons 24 lbs.	7 14
2. Labour	0 12
3. Fuel	0 6
4. Water	0 2
5. Supervision	Self
6. Repairs	0 1
7. Sales expenses	0 3
8. Miscellaneous including transport of cocoons, etc.	0 4
Total	9 10

Yield.

	Rs. A.
1. 2 lbs. of silk	9 10
2. 1 lb. of waste	0 4
	<hr/>
Cost of 2 lbs. of silk	9 6
	<hr/>

Hence cost of production of one lb. silk Rs. 4-11.

33. About 2,000 families depend upon sericulture for their livelihood in this taluk. 50 families depend upon reeling.

35. The reeler is paid 8 annas a day by me.

62. The price of waste is from As. 6-6 to As. 6-9 per lb.

63. The yield of waste which was more when reeling Mysore cocoons is reduced to about 50 per cent. now as cross-breed cocoons are reeled.

69. (a) Unless the duty is raised sufficiently on foreign silk, there is no chance of our getting an adequate remuneration for our labours. The sale price of foreign silk should be at least one rupee more than our cost of production in which case only will our industry survive.

(b) By way of specific duty.

(c) At least for 20 years.

72. Since the duties were raised in 1934, the imports to India were reduced in 1936 and there was a demand for our silk and we got better prices also. Even then we did not get any profits but minimised our losses. Unless the duty on foreign silk is raised sufficiently, we cannot get adequate remuneration for our labour leaving alone the question of getting any profits.

(4) *Reply to the Questionnaire issued by the Indian Tariff Board by Mr. B. Suryanarayana Rao, Aided Graineur, Chikkaballapur.*

I. Since protection was granted in 1934 there has not been much improvement in the Sericultural Industry. A spirit of awakening has come into existence all over the sericultural tract. There has been a growing and insistent demand for disease-free layings from all quarters. Since 1936 when prices of cocoons were above 5 annas a lb., the acreage has increased by 170 over a group of 35 villages whose statistics I have collected. By constant propaganda of the Departmental staff and Aided Graineurs the method of rearing has improved and failure of crops has become rare and the use of oil cakes as manure has been increasing thereby increasing the quantity of leaf harvested.

Over the group of 35 villages where statistics have been collected there have been about 250 families partly dependant upon sericulture as an occupation. Generally all over this area, sericulture is practised as a subsidiary occupation to agriculture. At present the acreage is 340 including an increase of 170 acres which has occurred during the course of last two years, when cocoon prices were about five annas a lb. for some months off and on.

There are about 70 charkas at work over the same group of villages and that means that about 200 families are depending upon reeling for their livelihood.

II. This industry can be classified under three main heads:—

(i) Mulberry cultivation and rearing.

(ii) Reeling of silk.

(iii) Marketing of silk reeled.

The rearing of worms is carried on side by side with cultivation and growing of mulberry. The reeler rears worms in his house and makes use

of his family labour. After the crop is harvested he sells the cocoons to the nearest reeler. In case of need he will have taken advances from the reeler and pays him back the same at the time of the sale of his crop. Evidently the principal investment for a rearer is his garden and the greater care he bestows on it the greater the profit for him.

Reeling.—Reeling on charkas exists all over the sericultural tract. The reeler purchases the green cocoons from the roarer sometimes directly, often through a broker who charges a commission of one anna for every tooka of eight pounds supplied. The silk is reeled, converted into hanks and disposed of through the merchants in Bangalore, or locally or else sold to distant centres like Gadag, Bagalkote, etc. The reeler gets advances from these merchants over which he pays interest at 10 to 12 per cent. If the demand is keen the silk is sold out at once and the money paid straight away to the reeler less the commission of an anna and a half for every lb. If the market is slack, the reeler has to deposit the silk with the merchant and return. When the silk is sold on terms to be decided mutually, the merchant informs the reeler who goes over and receives payment less advances and interest thereon.

Lastly the trade in this line is carried on by a koti merchant. He has his family funds invested in the business and if the money does not suffice, borrows from any big Banker or Joint Stock Bank. He deals in silk, sells against orders to distant parts and realises the money from those parties. As explained above he advances monies to reelers, gets interest at 10 to 12 per cent. thereon and charges a commission of an anna and a half on each pound of silk sold.

III. Under the present organisation the maximum production attainable is mentioned below taking the present acreage under mulberry into consideration. For a group 35 villages whose statistics have been gathered the extent of mulberry is 340 acres, the previous year's, i.e., 1936-37 being 165 acres.

Year.	Acreage (irrigated).	Present yield.	Silk obtained.
		Lbs.	Lbs.
1937-38 . . .	340	340,000 Yield attainable.	24,288
1937-38 . . .	340	428,400	35,660

This perceptible variation occurs as a result of rains not being sufficient and good examined hybrid seed not being available to all rearers and consequent failure of crops now and then. The market for cocoons is also so unsteady and therefore the prices at which silk can be sold cannot be estimated on any correct basis.

IV. The silk content of the varieties of cocoons with which I ordinarily deal is given below:—

	Per cent.
Mysore pure	12·8
Mysore × Chinese	13·3
Mysore × Japanese	14·4

I have no knowledge of other varieties of cocoons and therefore cannot say what yield they give as compared with the above.

V. At present cross-breeds between Mysore pure and Chinese and Japanese univoltines and bivoltines are reared largely in this area and pure Mysore rarely.

VI. The ryot does not generally have a separate house for rearing silk-worms, but utilizes a portion of the dwelling house for the purpose. But all

the same the following appliances he needs for rearing silkworms from 2 ozs. of seed:—

	Rs. A.
(1) Stands	12 0
(2) Trays (24)	12 0
(3) Chandrikes	30 0
(4) Bamboo baskets	2 0
(5) Chopping knives	2 8
(6) Gunny bags	8 0
(7) Earthen or metal pots to hold water and the posts to be	2 0
(8) Lantern, etc.	1 8
Total	65 0

The stands do not need any renewal for about 8 years. The trays should be renewed once in three years and chandrikes in five years. Once a year Rs. 2 at least have to be spent for repairs to trays and chopping knives.

Improvements are slowly and unobtrusively taking place in every rearing household as education regarding better methods of rearing, etc., is constantly being attended to. The following changes are noticeable over a great part of this area:—

- (i) Providing better ventilation and light.
- (ii) Voluntary requisition for disinfection of rearing house in cases of an attack of pebrine.
- (iii) Spacing of worms.
- (iv) Interspacing of trays being increased.

VII.

Race or Variety.	No. of days.	No. of cocoons per lb.	Length of filament.	Denier.
			Yds.	
Mysore Pure	30—32	500—600	350	1·8
Mysore × Chinese	24—26	450—500	500—600	2·0
Mysore × Japanese	24—26	450—500	500—600	2·0

VIII. The worms are now reared under intimate and strict supervision of the propaganda staff of the Sericultural Department as well as under close scrutiny of the Aided Graineurs in their jurisdiction. The rearers are weaned away from their old conservative ways and are educated to appreciate the new methods. They have understood the advantages of using examined seed. They have improved the rearing abodes by providing better ventilation and light. They provide proper space for the worms and interspace the trays more widely than before. They get their houses disinfected whenever pebrine appears in their crops. They are trying to grow mulberry tops and utilise the leaves for rearing the worms. All these are better methods being employed by rearers now and they conduce largely to give better crops than five years ago.

IX. The worms are reared out of layings prepared out of cocoons brought from the seed areas. Some parts of Mysore enjoy natural advantages for producing seed cocoons. The seed rearer there has a small garden, his rearings are also small which he attends to with great care.

Government of Mysore have organized a separate branch to control seed areas where rearers of repute having a good garden and rearing house are selected and disease-free layings are supplied free of cost. During all the stages the worms are inspected for diseases, growth and development. Cocoons from crops not satisfying the requirements are not allowed to be disposed of to rearers, Government grainages and aided grainages. In this manner the seed cocoon production in the State is well controlled. Government grainages prepare cellular disease-free layings and sell to ryots. To supplement the supply, aided grainages have been started which are run on lines similar to those adopted in Government grainages. The cost of producing an ounce of cross-breed seed is given below out of figures of my grainage.

	Cost price.	Sale price.
	Rs. A. P.	Rs. A. P.
1935-36	1 6 10	1 6 5
1936-37	1 6 8-4	1 6 5
1937-38	1 7 0	1 6 5

This does not include any remuneration for personal labour, towards depreciation on appliances, towards cost of my travelling expenses, etc. The Government of Mysore give a bonus of Rs. 5 per 1,000 layings, this to some extent re-imburses me for my labour, etc.

X. The Government of Mysore have been doing their best to provide disease-free layings to the ryots. They have started a number of grainages and provided facilities to start aided grainages. All of them are straining every nerve to meet the growing demand for disease-free layings from the ryots. The attempt in this direction on the part of our Government has met with considerable approbation from all the sericulturists. There has been a clamour for disease-free layings from Government as well as aided grainages.

Legislation too is contemplated. A draft regulation known as "The Seed Control Regulations" has been circulated by the Mysore Silk Association amongst the sericulturists and may soon become Law.

These ameliorative measures undertaken in the interest of sericulturists have been of great assistance and further attempts are eagerly awaited by sericultural public.

XI. Mysore race is multivoltine and hybrids that are issued by us now are also multivoltine. About five to six broods are raised every year. An ounce of cross-breed seed gives about 40,000 worms. The average quantity of seed required in this area is 12 to 13 ozs. per acre. For an area of 340 acres given above, the quantity required is about 4,500 ounces per year.

XII. Certain foreign races are being reared in Government Farms and the disease-free layings out of them are distributed to selected ryots for rearing to be used for seed in Government and Aided Grainages. They have been giving fairly good results but not as good as either Mysore or cross-breed races. The races issued to my clients for rearing are; C. Nichi, Shi., Shi., Nichi., and Aojuku.

XIII. First the seed control section of the Sericultural Department has a strict watch over rearings in their area with regard to growth, diseases and development. They do not allow seed not satisfying requirements to be sold for seed.

Secondly the cocoons are sorted and cleaned and all the inferior, flimsy and deformed cocoons are removed. A requisition is made by the Aided Graineur, who tests the pupæ for diseases and satisfies himself to the nearest Government Silk Farm under whose control he is working for the Farm staff to come and test the pupæ and certify that the cocoons are fit for seed. If they are not, the cocoons are steamed and sold for reeling. Otherwise they are preserved for seed. When moths emerge a careful selection is made and all unhealthy moths, moths with improper wings, moths which have lost scales on their body, are rejected and only clean, healthy, active moths

are allowed to copulate. Strict care is exercised in this selection only, so that the percentage of poor layings is minimised later.

Next, the pairs are left in separate cellules on a piece of newspaper in eight rows of five cellules each. After 5 to 7 hours of copulation depending upon the season and climatic conditions, the male moths are carefully removed and the females left inside the cellules to lay eggs. The sheets are numbered, the bottom left hand corner bearing the lot number and lastly the date of the laying. The next day onwards these moths which have laid eggs are transferred two at a time into a metal crate of twenty mortars of four rows of five crates each, i.e., all the 40 moths are put into 20 mortars of the crate two moths into each. They are crushed by twenty separate pestles, then smears taken by means of a brass pin on ground glass. A cover glass is slipped on the smear. Thus there are five smears on each ground glass plate and four such glasses are had for each crate. These smears are examined under the microscope for diseases which silkworms suffer from, such as pebrine, flacherie, grasserie, etc. As pebrine is a dangerous disease—hereditary and infectious—particular care is exercised to locate and remove it as also other diseases. This way pebrine is more or less eradicated. Rarely do we now-a-days hear of a crop being lost out of pebrine. For each egg-sheet examined, there will be an egg-card with twenty spaces numbered corresponding to the twenty smears on the ground glass plate and twenty-mortars in the crate. The diseases observed in particular smears are marked on the egg-cards. The layings corresponding to that particular space in the egg-cards are cut out as also those which will have less than 300 eggs. Thus the ryot is enabled to get layings free from diseases as well as rich in the number of eggs.

XIV. From hereditary diseases it is rarely that the ryot loses his crop, whenever he makes use of examined seed. From flacherie or grasserie, there may be a failure here and there depending upon the seasons. During summer a careless man may lose a portion of his crop out of flacherie and during rainy months out of grasserie.

Since five years there has been a marked improvement in the method of rearing by means of which the loss out of rearings is greatly minimised.

But in "Chawki" stage, even now, there will be a wastage of about 30 per cent. of the hatched worms due to various causes like the loss of young worms on the first and second days after brushing in beds, the losses out of lizards or cockroaches, rats, etc., preying on the worms, etc.

XV. The silkworms are fed on mulberry. Generally the rearer has his own garden and rarely does he sell the leaves except when it is surplus. The mulberry is propagated out of cuttings and grown as bushes. The initial expenditure for planting mulberry on an acre including Irrigation charges is detailed below. In these parts gardens are irrigated by means of deep wells. The cost of maintaining the same after planting is also attached.

Fresh planting.

	Rs.
Ploughing; I digging	30
II digging, levelling, etc.	20
Manure, and manuring; 40 cart-loads of cattle manure at Rs. 2 per cart-load	80
Mulberry cuttings	15
Cooly for planting	10
Irrigation charges once in 3 days until the first crop of leaves comes	60
Ropes, mhote, etc.	40
Total	<u>255</u>

Recurring maintenance charges per year.

	Ra.
Cost of digging, etc.	20
Manuring once in six months at not less than 15 cart-loads at a time	60
Pruning	8
Land Revenue	5
Irrigation charges say once in 5 days for the whole year	100
Repairs to the mhothe, etc.	10
Miscellaneous	5
	<hr/>
Total	200
	<hr/>

From an irrigated garden of this type about 13,000 to 13,500 lbs. of leaf are obtained for rearings per year, and 12 to 13 ozs. of seed are reared, i.e., for every oz. of seed the leaf required is 1,083 lbs. The cost of cultivation for getting 1,080 lbs. of leaf is Rs. 16-11 or for one lb. of leaf the cost comes to 2-9 pies.

XVI. Experiments are conducted by the Department to improve the yield of mulberry and the results are being made known to the sericulturists under departmental supervision and advice. Propagation of mulberry through seedlings and growing of mulberry topes appeal to the ryots' mind and they are being adopted. Use of oil cakes as manures has also been adopted and these improvements would be responsible to increase the quantities of leaf per acre than before.

(b) The indigenous variety gives 5-6 crops a year. Tree cultivation is certainly less expensive than the bush but the latter cannot be dispensed with if the quantity of leaf harvested is taken into account. A number of topes are being planted and the advantages are being understood by the ryots.

XVII. These are not available. This question of a breeder rearing worms by purchasing leaves grown by another man rarely occurs. The grower of mulberry is the rearer too.

XVIII. The position in so far as the price of green cocoons or silk is concerned has not improved since the last Tariff Board Enquiry. In fact, the change is for the worse. There has been a further drop in the price of cocoons and silk.

XIX. The methods to be adopted to increase the quantity and quality of leaf (mulberry) in these parts are (i) increased use of manure, (ii) increased use of oil cakes, etc., better varieties of manure, (iii) better varieties of cuttings being used for propagation, and (iv) lastly propagation through seedlings in place of cuttings. The first two would be responsible to give nearly 30 per cent. more leaf than before in spite of a little extra cost of cultivation incurred but this can only be done when the ryot has more money by sale of cocoons.

XX. As explained already in regard to both cultivation methods and rearing of silkworms there has been a noticeable improvement. With regard to marketing too, the department has promoted formation of cocoon markets for the advantage of the ryot. The period of protection limited as it has been, is so meagre to expect any great changes. Given time and protection for a sufficiently long period the activities of the Department are sure to help the sericulturists and lead them out of the present impasse.

XXIII. The sericulturists have no account and so these figures cannot be had. The cost of production of cocoons from an oz. of cross-breed seed is given below as can be roughly gathered from accounts furnished above:—

	Rs. A. P.
Cost of seed	1 6 5
Cost of extra labour	3 5 4
Cost of leaves	16 11 0
Cost of appliances	1 14 4
Other expenditure	0 4 0
Total	23 9 1

Recently the expenditure upon gardens has been increased and so the increase in the cost of leaves. But there has been an adequate return in the quantity of leaf harvested. The yield per 100 disease-free layings has also increased to about 60 lbs. or about 80 lbs. per oz. of cross-breed seed. The cost of producing one lb. of cocoons is about As. 4-8.

(5) *Letter from Mr. G. R. Suryanarayana, B.A. (Hons.), of Shantigrana, Mysore State, dated the 12th August, 1938.*

Subject:—THE PROBLEM OF "PROTECTIVE DUTY vs. SUBVENTION OR BOUNTY" REGARDING INDIAN SERICULTURAL INDUSTRY.

I beg to write that, for over five years, I have made good *a priori* academic study of the Indian and world economic problems, with particular patriotic alertness regarding the "Interests of Mysore, vis-a-vis, Japanese competition",—in connection with my preparation for the Indian Civil Service and other central competitive examinations. I have been taking keen interest in sericulture in my village Shantigrana and other centres in Mysore, from my very boyhood; and have been recently contemplating to start a "Sericultural Industrial Home" at Shantigrana, for one of my brothers who is a qualified sericulturist. As in reckoning the difficulties that face one in this matter, I feel that the problem needs to be viewed from Mental and Moral Science points of view, I crave your indulgence to expatiate on the "Bugbear" that mentally and morally inhibits youngmen in India from taking up to this industry for a career:—

1. *Mental, Moral and Religious racketeering for trade purposes by Japanese.*

During my all-India travels and particularly in the cities of Bombay, Delhi, Madras and Bangalore, I have made a free lance survey into the unfair and unrestrained method of advertising, marketing and hawking of Japanese goods. To use psycho-analytical terms: 'they are using the "Ego ideal" and "Idiotic" aspects of the mind for the purposes of the "Ego"' which needs moral dishonesty. They are connoisseurs in the study of the sub-conscious mind of the Indians and their appeal is by the back door of the mind by superstitious and mythical suggestions. They are immensely resourceful in these abusive utilisation of Religious symbols and beliefs, and fraudulent exploitation of the patriotic sentiments of the vast ignorant and illiterate masses in India, who are incapable of seeing through them.

Japanese are well-known for their capacity as "gate-crashers" and "tar-dodgers", which is not only far away for attainment by Indians, whose "'endemic' 'mental complexes'" are inferiority and fear complexes. Besides, the simple and better commercial honesty of the Indians would be disadvantageous to compete with moral dishonesty of the Japanese who subordinate morals to business.

Though India is said to be the "Mother of Philosophy" and the premier leading country in Mental and Moral Sciences, it is paradoxical

that this is the very country which is weak without mental and logical alertness and which lends itself to much exploitation by superior mental and moral talents of Japanese and other foreigners, in trade and industrial competition. India is not advanced in this method of advertising and marketing, while the Japanese industrialists employ very resourceful psychologists and mental and moral science specialists to expand their trade and to invent devices to circumvent and hoodwink the tariff disadvantages and other restricting laws. Indeed, their capacity in this direction is so hydra-headed that it is very hard even to discover by the keenest eye. In studying the competition of Japanese with Indian Silk Industry, *inter alia*, this advantageous mental and moral traits of the Japanese and the comparatively disadvantageous position of the Indians in this direction must be closely considered.

Till this problem of "Marketing racketeering" is solved and brought under control by the Tariff Board (India), and does it best to *advance* and develop Indian commercial talents in this direction to a sufficiently counter-balancing level, protection by bounty is a "Dead Sea apple",—considering the hydra-headed and very resourceful tactics of Japanese to make up this consequent disadvantage by marketing and advertising. Hence, the imperative need for increased protection by raising the tariff on Japanese Silk goods.

I would take this occasion, to make a humble suggestion that the Tariff Board, should employ Mental and Moral Science specialists in India, to conduct survey, investigation and research to those aforesaid and allied problems and to get suitable suggestions in formulating tariff policies, as well as to do their best by counter-balancing devices in other directions.

2. Sea Traffic and Shipping Control.

Above all, the competitive advantages in sea traffic and the utterly disadvantageous position of Mysore in this matter is overwhelmingly against "Bounty", and makes the case clearly and decidedly for "Protective Duty". The convention and protocol regarding commercial relations and shipping entered into between Japan and India and England is all favourable to Japan at the cost of the interests of India. The Japanese have good resources of under-cutting their rates or to otherwise make up the losses by "prices in the market" by appropriate changes in ship traffic. Besides, the advantages of Silk Industry in this direction depend upon and have to fluctuatingly adjust to several other interests of other shipping commodities. Considering these aforesaid transcendent causes and other outside interests, the case is unequivocally for *propos* protective duty, till at least the present protocol ceases and a new suitable one is entered into.

Should the Board think that I should personally appear before it, I should gladly be at their service; and thanking for an early communication in the matter, I beg to remain, Sir, etc.

(6) *Replies to questionnaire for the handloom industry handed in at the time of oral evidence on the 11th August, 1938, by Mr. R. S. Muni at Bangalore.*

2. Certain quantity of raw silk is obtained in India round about Mysore and Jammu in Kashmere. Spun Silk and Rayon is imported.

Gold thread is obtained from Surat mainly and is manufactured in Surat (India).

The price of raw silk ranges from Rs. 5 to Rs. 7-4 according to the stocks held, and demand. Spun silk ranges from Rs. 4 to Rs. 5-8 varying according to quality. Gold thread costs Rs. 55 to Rs. 66 per lb.

3. Staple yarn was being used in the manufacture of silk goods, in the proportion of 1 : 1. It is imported from abroad and its price is between As. 14 to Rs. 1-4.

4. There is absolutely no tendency for the staple yarn to oust the silk. Staple fibre goods do not have a good estimation, particularly when associated with manufacture of sarees.

5. (i) Other agency.

(ii) Some do their own, while there are small dyehouses owned by dyers who do the dyeing and boiling off for commission.

(iii) Do as above.

(iv) Generally by the weaver.

6. Two thread orgazine for warp and 3 thread trama for weft.

7. The same condition prevails even now, although there have been one or two, who carry on independently of merchants. Majority of weavers seem to be not getting their due share, but there are exceptions to the above. If there is good understanding between the merchant and the weaver I should always prefer their arrangement.

8. Silk suitings and shirtings are not manufactured to any scale worth mentioning as it is impossible to compete with foreign goods. So far there has not been foreign competition in sarees although there has been internal competition by the manufacturers, by the use of cheap imported silk in the sarees.

12. The length and width of a saree is 9 yards x 45" respectively.

14. Spun silk is used in the manufacture of cheap sarees, shirtings and suitings.

15. The weavers obtain from both as the case may be.

16. Yes. It varies according to the credit of each individual and there is no fast rule.

17. In some cases well-to-do weavers obtain their silk directly, this is a small percentage. Most of the weavers get through their cloth merchants to whom they give their woven goods for sale.

18. The Indian silk is poor with regard to unwinding qualities and also contains knots, slubs and rayed yarns. This is absent in imported silk. As regards weaving quality which is the primary factor, the Indian silk is far superior to imported silk, besides having good affinity for colors. The merchants prefer imported silk as it is a ready seller.

19. Sorting and grading is not usually done. If graded the quality would improve and in consequence greater demand for the quality silk will be created.

20. *Vide* answer to question 17.

22. There seems to have been some experiments carried but I am not aware if the results came up to expectation.

23. The merits of artificial silk is generally well known to the Indian consumers and their demand is very low.

36. Vice-Consul for China, Bombay.

(1) *Demi-official letter No. 628, dated the 24th June, 1938, from the President, Tariff Board, to Yoshih Chen, Esq., Vice-Consul for China, Bombay.*

Many thanks for having acceded to the Board's request for an informal talk. The Board listened with very great interest to the point of view put forward by you.

As promised, I am sending you herewith a few questions which the Board would like you to answer along with the replies you will send to our main questionnaire. Please note that these questions refer to the conditions before the Sino-Japanese conflict. If the answers to some questions are delayed, the Board would be grateful for replies to the other questions as soon as the material is available.

Supplementary Questionnaire.

1. Please state the cost of production of mulberry leaves, cocoons and raw silk in Canton.
2. What is the average number of basins per filature which the Chinese Government consider necessary for an economic unit?
3. Please state whether the Chinese Government are giving any export bounty.
4. What has been the total production of raw silk in China since the last five years?
5. Please state whether the Chinese market has been affected by the imports into that country of artificial silk from Japan.
6. How does the quality of Chinese silk compare with Indian silk?
7. What is the initial cost of equipment commonly used for hand reeling? What outturn should it give? How long does it last?

(2) *Letter No. YSC/27-D./180, dated the 16th July, 1938, from Yoshih Chen, Esq., Vice-Consul for China, Bombay, to the President, Tariff Board.*

I have pleasure in sending herewith a detailed note on questions pertaining to the Sericultural Enquiry by the Tariff Board, as promised during the informal talk with the Board and as desired by you in your letter No. 628, dated the 24th June, 1938.

I am glad to note from your letter that you have thought it right to restrict the questions to conditions prior to the commencement of the Sino-Japanese conflict. This should necessarily be so, as not only have prices been greatly affected by the war, but also a great blow is given to the Sericultural Industry of China thereby. Filatures are destroyed and several of the silk producing centres are under military occupation. This would suffice to put off the Chinese silk for some years to come from the field of competition. I have no doubt that this and several consequential facts will be duly weighed by your Board.

I understand that there is a proposal to restore tariff values. If that should find favour with your Board, I need hardly point out that unless fair and equitable values are fixed up, it would make room for discrimination between different foreign goods. I would therefore request that in fixing tariff values, the prices prevailing in 1936, which to all purpose, I believe, was a normal year for silk trade, should form the basis of your consideration.

Finally, I would urge that, if as a result of your investigations and deliberations you find that the Chinese silk trade was prejudiced as a result of the last protective measures adopted in India without corresponding gain to the Indian industry and that on the contrary other foreign goods were unjustly benefited, then your Board will not hesitate to recommend measures to remove such inequitable fetters which hamper the Chinese silk trade.

I now avail myself of this opportunity to express to you and the members of your Board my thanks for the consideration extended to me.

Note from the Vice-Consul for China, Bombay, to the Tariff Board in connection with Sericultural Enquiry.

1. Needless to point out at the outset, that silk has been not only one of the staple industries of China, but a principal item of trade which has cemented for ages the happy commercial relations between India and China. Chinese silk has in India, as in other parts of the world, encountered keen and often unfair competition, and the decline in the Chinese silk exports to India has been considerably responsible for the unhappy position of marked depreciation of the volume of trade in general between the two countries. Any proposal that would further cripple the Chinese silk export to India or fail to remove the handicap from which it suffers at present

is bound to further prejudicially affect the already depleted volume of trade between the two friendly countries and their finances.

2. Retrospectively, it was since 1930 in particular that Chinese silk interests suffered heavily for various reasons which then necessitated Government intervention to revive the industry from the verge of bankruptcy in which it found itself. Steps were taken to relieve the farmers who were then in a pitiful state and even subsidies were in or about 1933 granted by the Government to exports of raw silk as ameliorative measures.

3. Since then the Chinese Government were convinced that more fundamental measures were necessary for the general rehabilitation of the industry, particularly with a view to increase production, improve quality and reduce costs of production. A Sericultural and Filature Improvements Commission was created in 1934 as a subsidiary organisation of the National Economic Council of China. As a result of the efforts of this Commission exports showed marked increase and so also the market price of silk.

4. Many varieties of silk-worm are found in China such as the silver white variety of Kiangsu, Chekiang and Anhwei; the Yellow and Pink varieties of Szechuen, Hupeh and Shantung and the Pluvoltine White variety of Kwangtung (Canton). The bad points of these varieties lie in their unfavourable yield and their inferior quality. To cope with these defects, modern seed producing stations have been organised in various provinces with a view to start regular production of seeds of a standard type prepared under scientific conditions and free from hereditary disease. The type produced in largest quantities was a crossing of a white monovoltine and a white bivoltine. These crossings have been found suitable for thicker thread. Experiments are being made to study the qualities of Chinese varieties and test the possibilities of crossing them. But the Chinese reelers themselves prefer the Chinese white variety.

5. Period of Development, covering incubation Larval and Pupa stages, of the Chinese variety, is on an average 48 days 23 hours. The percentage of loss of silk worms is 12.22. The weight of Cocoons per thousand silk-worms was found to be 1,757.2 grams and the average weight of silk-casing of 20 cocoons to be 5.7 grams. The average length of silk from one cocoon was found to be 673 rolls (one roll being equal to 1.325 meters). The average number of moth from one egg was 554. The cost of mulberry leaves in Canton is on an average 170 Hongkong Dollars to 1 picul. 1 catty (1/100 picul) of raw silk takes about 4 Hongkong Dollar worth of Cocoons, the indigenous Chinese variety of silk-worm needing 600 to 700 catties of cocoons for one hale of silk. The price of raw silk in Canton is on an average 400 Hongkong Dollars for 1 picul.

6. Filatures in China are still equipped mostly with old and inefficient types of wooden and iron machinery though side by side modern and new machines have been increasingly used. The new type of machines have been able to produce 20 ounces of silk per day as against 8 or 9 ounces in the case of old machines. The equipment most common in Canton is the wooden filature costing about 15 Hongkong Dollars which can last for two years. They produce 6 to 9 ounces per day depending upon the number of "ends" used.

7. The cost of silk reeling is now considerably reduced and the yield to the basin has been doubled. The cost of labour has decreased from 400 Shanghai Dollars to about 100 per picul. The production of raw silk in 1936 was estimated to be 120,000 piculs, an increase of about 20 per cent. more than in 1935.

8. The Chinese Government has also introduced the Government Testing Bureau for the Testing and Grading of raw silks which will eventually weed out poorer qualities of silk.

9. The Chinese market has indeed been affected by imports into China from Japan, particularly by illegitimate means. But the effect on Chinese silk has been more marked through Japanese competition, however in foreign countries.

10. A review of Chinese silk trade with India after the introduction here of protective duties may now be undertaken. At that time it was pointed out by my predecessor in office and the Chinese traders, that the Chinese silk goods coming under the operation of the Indian Tariff, particularly most of the Cantonese goods, were of a class and quality different from that which is being produced in India or likely to be produced here. It was also pointed out that as they cater for the needs of poorer and some particular classes of people in India, the result of the enhanced tariff would at least in the case of Chinese silk result only in increasing the burden of the particular consuming class of such product. Even the Tariff Board in its report pointed out that Chinese silk of such class at best come only into indirect competition with some products in India. Opinion was also expressed that instead a great fillip would be given to the artificial silk industry and that the latter would surely take the place of some of the coarser sorts of silk wherein the Chinese pre-dominated. A survey of Indian import figures would leave no doubt in one's mind that all these prognostications have come true, though I do not know nor am I competent to judge how far the intent of those protective measures have come true.

11. The following figures taken from "*Annual Reviews of Trade in India*" will speak for themselves about the increase in the import of artificial silk.

Artificial Silk—Total Imports.

Yarn.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Quantity in million yards	11.0	9.8	16.6	14.0	17.0
Value in lakhs of rupees	92½	82	118	84	99
Piecegoods.					
Quantity in million yards	112.8	40.4	67.6	74.5	102.0
Value in lakhs of rupees	253	108	183	188	238

Needless to say that of this the share of Japan was the most predominant. The following comparison of relevant figures of total imports of artificial silk and real silk raw and manufactured would be also instructive:—

In thousands of rupees.

	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Artificial Silk	4,15,85	2,74,15	3,59,29	3,15,78	3,85,60
Pure Silk	4,33,37	3,58,60	3,37,09	2,77,65	2,41,87

12. The figures further reveal that while prior to 1933-34, China had dominated the silk market in India, since then for one reason or another her supply dwindled down. It is somewhat significant that the recession in Chinese imports curiously resulted in incline of the Japanese silk to corresponding extent while the figures of total imports of silk varied but a little, as seen below:—

Silk, raw and manufactured, Supplies by China and Japan.

	China.	Japan.
1932-33	2,930,000 lbs. at average value of Rs. 3-12-3 per lb.	165,000 at average value of Rs. 2-13-8 per lb.
1933-34	2,101,000 lbs. at Rs. 3-0-11 per lb.	220,000 at Rs. 2-15-9 per lb.
1934-35	1,299,000 lbs. at Rs. 2-11-9 per lb.	897,000 at Rs. 2-6-4 per lb.

Raw Silk including Cocoons.

	Total Import in Lakhs Rs.	Chinese Import in Rs. Lakhs.	Japanese Import in Rs. Lakhs.
1933-34	72	64	7
1934-35	57½	36	21
1935-36	57½	15	42
1936-37	57½	28	36

13. Chinese imports, while no doubt, were declining even prior to the last Tariff Board inquiry, owing among various other causes to the decline in the internal economy of China aggravated by natural disasters and foreign aggression they were further affected prejudicially by sagging prices and artificially appreciated Chinese exchange in the summer of 1934 continuing upto the autumn of 1935. Added to all these difficulties were the increase in Indian import duties, with the result that Chinese imports into India suffered very heavily. The following import figures of Silk Yarn and Piecegoods further indicate this unfortunate tale.

Silk Yarn.

	Total Imports (lbs.) (000).	Value in Rs. (Lakhs).	Chinese (lbs.) (000).	Japanese (lbs.) (000.)
1932-33	3,010	88	...	...
1933-34	2,028	47	615	814
1934-35	3,293	78	587	1,835
1935-36	3,600	84	483	2,377
1936-37	2,400	60½	468	1,657

It must be noted that the increase further in silk yarn import duty since 1st May, 1936, affected appreciably the total imports and those of Japanese yarn, while not as much the Chinese. This may be accounted for by the stabilisation of Chinese currency after November, 1935, the consequential revival of trade as well as on account of the exchange stability.

The average declared value of Chinese yarn was Rs. 2-9-6 per lb. till about 1935-36 then falling to Rs. 2-4-6 in 1936-37. The average value of Japanese yarn was Rs. 2-9-6 in 1934-35, Rs. 2-6-1 in 1935-36 and Rs. 2-9-6 in 1936-37.

Silk Piecegoods.

	Total Imports in Million Yds.	Chinese in Million Yds.	Japanese in Million Yds.
1934-35	33.3	5.1	28
1935-36	27.4	5.3	22
1936-37	21.6	5.2	16

The average declared value in case of Chinese imports was Rs. 5-0-8 in 1934-35, Rs. 3-12-8 in 1935-36 and Rs. 4-2-3 in 1936-37 as against Rs. 4-10-11, Rs. 4-4-8 and Rs. 4-12-6 of Japanese imports in corresponding periods.

While Chinese imports had declined considerably prior to 1935 it has since remained steady, due primarily perhaps to the mounting up of the prices of Japanese silk owing to Government restrictions and damage

wrought by natural causes, as well as restricted crops of cocoons. China also suffered then from dourth of Cocoons and consequent higher prices.

14. Whatever may be the worth of the figures cited above in their bearing on the Indian Sericultural Industry, it seems certain that Chinese silk instead of competing with the indigenous industry itself finds competitors from other foreign products and its place has been to a greater extent taken over not only by other foreign silks but cheap artificial silks and mixed products. Before the latter gained a firmer footing in the Indian market, the prices of Chinese silk remained stable and the indigenous sericulture industry was steadily prospering as well. China has never before, even when it was predominating the market, attempted to dump her products in any of her foreign markets. Raw silk and silk piece-goods of certain quality is not produced or manufactured in India and it is in products of these qualities that Chinese products supplement Indian products, catering only to the needs of particular classes of Indians as are to be found in Gujerat, Kathiawar and Marwar. Chinese goods have never appreciably been helped by some of those factors which help the dumping of other foreign materials like currency depreciation and Government subventions for expansion of their sale in foreign markets. Indeed, Government of China in the recent years have adopted various measures solely with a view to improvement of the industry like the establishment of co-operative silk-worm egg farms, of advanced classes for filature workers, of Bureaus for the purpose of imparting instructions to farmers, distribution of seedlings of proper types and qualities and loaning of the latest types of machines to filatures. These measures are adopted so as to improve the quality of the Chinese products on the one hand and lower the costs of production on the other. But subsidies or subventions have not been given except in 1933-34.

15. Chinese silk have all along stood on merits and competed on the strength of its distinctive quality and given normal conditions would so stand even in the Indian market without in the least directly influencing the indigenous industry. Most particularly, silk from Canton is consumed in India in large quantity and it seems that Cantonese silk have found favour so far inasmuch as 70 to 80 per cent. of Cantonese silk has been consumed annually in India alone. However, in recent years on account of various factors this sort of silk has been rivalled as well by other foreign production. Not the least among the factors, were the increased tariff in India inasmuch as they have facilitated the expansion of artificial silk and mixed goods and these expansions have to a great extent been at the expense of Cantonese silk, which are coarser and heavier in texture and manufactured mostly from silk waste. Because of the use of starch and coating with size the weight of Cantonese silk is heavier and imposition of specific duties (though afterwards revised to avoid undue discrimination) has very adversely affected the Cantonese silk industry than others. Cantonese silk merchants have been trading in India for more than 100 years. Immediately prior to the last Tariff revision there were four bigger firms in Bombay dealing in Cantonese silk paying on an average from 12 to 15 lacs of rupees per annum as duties. It may be mentioned that Bombay is the one and only port at which these Cantonese goods are imported, though 90 per cent. of these piecegoods are consumed in the markets of Gujerat, Kathiawar and Marwar, access to which can be had from other ports in the Native States. These firms who were of good standing and carrying on business honestly and straightforwardly without ever trying to evade in anywise payment of duties or dump their products, have found unfortunately that in the case of their products the law of diminishing returns had ceased to function. Two of these four firms were therefore compelled to close their business in Bombay and pack off, while the other two are maintaining their stand in the market with utmost difficulties as will be seen from the figures mentioned below of one of these firms. The rise in tariff is to some extent responsible as well for adding to these difficulties, particularly when the levy of specific duty was adopted inasmuch as that system is patent in affecting prejudicially the class of products they deal in, without bringing about corresponding benefit to the indigenous industry.

Import figures of one of the Cantonese Firms.

	Silk piecegoods.		Raw Silk.		Total.	
	Import.	Duty paid.	Import.	Duty paid.	Import.	Duty.
	Ra.	Ra.	Ra.	Ra.	Ra.	Ra.
1933	6,52,681	2,29,310	4,43,529	84,689	10,96,210	3,13,999
1934	5,88,114	1,57,620	2,18,971	71,619	8,07,085	2,29,239
1935	4,52,290	1,27,584	2,08,007	65,705	6,60,291	1,93,289
1936	3,13,824	1,37,043	1,54,516	48,848	4,68,340	1,85,891
1937	2,94,066	89,345	1,15,596	36,299	4,09,662	1,25,644

The progressive diminution in the imports of one firm shown in the above figures is not only to be found in the case of other firm as well, but also in all Chinese silk products imported into this country. I have with me figures compiled in a table from Chinese statistics which bear this out. The Table " B " shows exports into British India which are so declared to the Chinese Customs, and includes Burma. It also contains the Total Exports from China to all the foreign countries together and would give an idea as to the relation of imports into this country with the total exports from China. The Table must be read subject to certain qualifications. Firstly, they do not show exports of Chinese silk which have found their way into this country from Hongkong. Secondly, lately on account of armed smuggling indulged in by the Japanese in North China in particular, some part of the imports from China in the last year or so include products not strictly of Chinese origin which have found way into China through such dubious ways. I believe, these figures would help your Board in finding out what particular class of goods do not compete with the indigenous product and in devising measures for safeguarding Indian industry without unnecessarily penalising the Chinese trade. They do not show the imports of some silk products, like the waste, in which the volume of Chinese exports to India is not sufficient in comparison with the exports to other foreign countries as to find separate mention. The corresponding figures of silk yarn are given below separately in Table " A ".

TABLE " A "

	1933-34.		1934-35.	
	Kg.	St. \$*	Kg.	St. \$
Exports of Silk Yarn to British India.	260,188	1,390,495	203,751	1,027,756
Total . .	459,234	2,568,322	377,882	1,961,040

	1935-36.		1936-37.	
	Kg.	St. \$	Kg.	St. \$
Exports of Silk Yarn to British India.	231,426	1,128,529	114,749	585,497
Total . .	432,691	2,353,394	312,780	1,773,240

* Chinese Standard Dollar.

TABLE "B".

Table showing imports from China into British India (including Burma) of different silk products, with total exports from China mentioned under them in brackets for comparison.

Silk.	1933-34.		1934-35.		1935-36.		1936-37.	
	Kg.	St. \$	Kg.	St. \$	Kg.	St. \$	Kg.	St. \$
1. Raw, Reeled from Dupions	{ 114,900 (123,900)	453,078 485,926	107,788 (142,812)	304,077 564,192	57,180 (105,057)	347,819 561,351	58,335 (90,030)	347,819 559,943
2. Raw, white, not reeled and not Steam Filature.	{ 27,200 (91,200)	159,092 510,080	42,231 (104,234)	225,032 560,484	13,175 (58,982)	73,828 353,710	13,741 (94,136)	104,039 755,033
3. Raw, white, re-reeled	{ 19,700 (95,700)	120,999 703,595	15,178 (227,224)	97,438 495,833	14,660 (117,888)	123,496 1,003,454	49,177 (163,907)	500,372 1,654,659
4. Raw, white, Steam Filature	{ 352,600 (2,183,300)	1,964,750 14,336,577	44,828 (3,219,244)	319,060 26,567,764	148,287 (270,778)	1,259,073 29,355,063	397,976 (3,127,865)	3,757,288 37,422,372

6. Raw, yellow, not re-reeled and not Steam Filature.	{ 310,300	2,843,747	398,819	2,045,228	464,436	3,682,190	398,215	3,168,270
	{ (437,600	3,768,590)	(528,044	3,799,899)	(505,142	4,334,986)	(451,907	3,541,055)
6 Raw, yellow, re-reeled . . .	{ 8,500	81,295	3,421	20,857	2,567	12,585	2,019	11,594
	{ (15,101	137,813)	(6,123	37,002)	(12,004	62,673)	(10,810	79,950)
7 Raw, yellow, Steam Filature . . .	{ 63,900	814,891	9,748	81,809	658	4,350	46,107	422,139
	{ (242,600	3,052,448)	(228,973	1,935,539)	(64,069	627,045)	(114,209	1,220,327)
8. Silk piecegoods . . .	{ 129,600	2,380,261	137,072	1,791,351	133,902	1,738,361	100,938	1,399,918
	{ (359,700	11,273,346)	(451,093	6,979,731)	(427,209	6,208,131)	(287,847	4,240,283)
9. Silk, Pongees, Honan . . .	{ 6,700	53,773	6,983	58,584	1,587	14,216	3,287	27,343
	{ (147,300	1,122,442)	(148,228	1,092,186)	(61,560	575,145)	..	..
10. Silk, Pongees, Shantung . . .	{ 36,200	298,125	19,258	141,967	13,259	121,681	16,603	159,075
	{ (383,200	3,303,638)	(362,498	3,026,998)	(406,329	3,593,131)	..	..
11. Silk, Pongee, other kind . . .	{ 55,200	477,360	63,105	511,619	2,753	27,586	29,793	323,512
	{ (87,200	759,841)	(109,039	206,865)	(72,189	712,435)	..	..

- (3) *Demi-official letter No. 935, dated the 31st August, 1938, from the President, Tariff Board, to Y. S. Chen, Esq., Vice-Consul for China, Bombay.*

In the course of your oral evidence before the Tariff Board this morning it was stated that the figures of cost of production of mulberry leaves, cocoons and raw silk in China given in the written note submitted by you were taken from some published book. I should be much obliged if you could kindly let me know the name of the book and the year of its publication. I should also be glad if you could let me see the book for a few days. It will be returned when done with.

- (4) *Demi-official letter No. 941, dated the 1st September, 1938, from the President, Tariff Board, to Y. S. Chen, Esq., Vice-Consul for China, Bombay.*

In the course of the oral evidence tendered by you before the Tariff Board yesterday you brought to the notice of the Board that the imports from China during the three months from April to June, 1937, were not entirely of Chinese origin but were largely Japanese goods smuggled into China and shipped from there to India and in 1938 they were Japanese goods owing to some of the Chinese ports now belonging to Japan. The Board would feel grateful if you could kindly let them know whether it is possible for the Customs authorities here to detect such goods on arrival in India. Your statement, I take it, applies both to raw silk and silk piecegoods.

- (5) *Letter No. YSC/27/230, dated the 2nd September, 1938, from Y. S. Chen, Esq., Vice-Consul for China, Bombay, to the President, Tariff Board.*

I am in receipt of your letters Nos. 935 and 941, dated respectively the 31st August and 1st September.

As desired in the former, I have pleasure in sending you herewith two books, viz., "the Chinese Year Book, 1935-36" and "Twenty-five Years of the Chinese Republic". Relevant pages have been marked for your reference.

With reference to your letter No. 941, I believe I must make it clear as to what I stated to you in answer to your inquiry about the marked increase of imports from China in 1937. As one of the reasons, I stated that for some time prior to that period it has been known to be a fact that Japanese goods entered China by armed smuggling carried on a gigantic scale and that it may be also that some portion of the imports from China includes products not strictly of Chinese origin. The pamphlet* which is sent herewith will give you some idea of the extent to, and the manner in, which smuggling had been carried on in all sorts of goods, including silk and artificial silk. I regret I have no other copy of this book nor of the subsequent publications in the matter.

As to the question of detection of such goods entering India, I would like to make investigations and advise you in the matter hereafter.

- (6) *Note on the Currency Policy of the Chinese Government, forwarded with letter dated the 30th September, 1938.*

For some time prior to the introduction of the new monetary policy (November 3, 1935), China had been going through a period of deflation, brought about first by the rapid abandonment of the gold standard by the

principal countries of the world and aggravated later by the aggressive American silver policy which had the object of "doing something for silver". China's balance of international payments had at that time also began to turn against her. All factors therefore tended to widen the disparity between the world price of silver and the rate of Chinese exchange, and encouraged the enormous export of silver in 1934. Smuggling of silver had become highly lucrative after the imposition of tax on silver exports. Though some important reforms were made and measures adopted, in mid-October, 1935, the persistent uncertainty as regards the future of the currency, combined with the repeated rumours to which this gave rise, led to a renewed and more vigorous attack on the dollar. The value of the dollar began to weaken irresistibly in terms first of gold and foreign exchanges, and later, in terms of sensitive commodities. It was under these circumstances Government introduced its new monetary policy.

Under the new policy, *inter alia* it was provided that the exchange value of the Standard Chinese dollar was to be fixed at the level it had reached at the time of the mandate, and in order to keep the exchange value stable at that level the three Government banks were to buy and sell foreign exchange in unlimited quantities.

The new monetary policy was singularly successful and stability of exchange had been fully maintained in a way never before experienced in China as would be seen from the figures hereunder mentioned:—

Official Foreign Exchange Quotations in London and Hongkong.

Shanghai T. T. on London s. d.				Hongkong Dollars.		
	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.
1934 . . .	1/6-250	1/2-500	1/4-100	90-750	80-000	88-076
1935—						
January . .	1/5-625	1/4-625	1/4-938	82-000	80-000	80-350
May . . .	1/8-375	1/7-875	1/8-125	70-000	69-000	69-200
December .	1/2-375	1/2-375	1/2-375	92-000	81-000	88-850
1936—						
January . .	1/2-375	1/2-375	1/2-375	92-500	90-000	91-510
August . .	1/2-375	1/2-375	1/2-375	96-000	95-500	96-180
October . .	1/2-438	1/2-250	1/2-352	96-750	95-500	96-180
December .	1/2-469	1/2-375	1/2-416	96-750	96-000	96-550
1937—						
January . .	1/2-375	1/2-375	1/2-375	96-750	96-750	96-750
May . . .	1/2-375	1/2-375	1/2-375	97-000	97-000	97-000

The rates shown as that of May, 1937, have remained in force with very slight variation as the Government's average official daily rates of exchange since May, 1937, to the current month. However, the average daily open market rates for T. T. abroad have varied on account of the flight of capital and breach of the Gentlemen's Agreement by foreign banks whereby they had placed a virtual, though voluntary, embargo on the exports of silver abroad. As a result of the unjustified attack on the exchange duo to the existence of a state of war in the country, Government have been maintaining a separate official daily rates of exchange for all just and due withdrawals and this rate differs from the daily open market rates for T. T. abroad. The official rate has been preserved as it was stabilised since monetary decrees of November, 1935.

The Shanghai T. T. rates on Bombay are given below:—

			Bombay Rs.		
			Highest.	Lowest.	Average.
1934	.	.	101-000	80-000	83-965
1935—					
January	.	.	112-250	79-000	97-800
May	.	.	112-250	109-250	110-779
October	.	.	100-500	81-250	95-567
November	.	.	82-000	79-000	79-280
December	.	.	79-250	79-000	79-100
1936—					
January	.	.	79-125	79-000	79-095
June	.	.	79-000	79-000	79-000
December	.	.	79-750	79-700	79-700
Average	.	.	79-750	78-500	79-189
1937—					
January	.	.	79-125	79-000	79-103
May	.	.	79-250	79-250	79-250

37. Replies received from Messrs. Nagindas Foolchand Chinai and Co., Bombay.

- (1) *Demi-official letter No. 690, dated the 14th July, 1938, from F. I. Rahimtoola, Esq., President, Tariff Board, to Jivanlal Chunilal Chinoy, Esq., 79, Masjid Bunder Road, Bombay.*

Will you kindly supply to the Board recent c.i.f. prices of the various classes of articles shown below:—

- (1) Raw silk,
- (2) Silk yarn on twisted silk,
- (3) Noils,
- (4) Spun silk,
- (5) Nitto yarn,
- (6) Artificial silk yarn and twisted silk rayon,
- (7) Pure silk goods,
- (8) Artificial silk goods and mixtures,
- (9) Staple fibre and coloured staple fibre.

- (2) *Letter, dated the 15th July, 1938, from Nagindas Foolchand Chinai, Esq., Bombay, to F. I. Rahimtoola, Esq., President, Tariff Board.*

With reference to your D. O. No. 690, dated the 14th inst., underneath please find c.i.f. prices of all the items excepting No. 7/8 information on which can be had from Mr. Karanjia.

1. Raw Silk (price per 100 kins—132½ lbs.):—

	Rs.
A. Japanese Filatures White 13/15	620
Japanese Filatures White 20/22	590
Japanese Filatures Yellow 20/22	560
B. Canton Steam Filature 20/22	330 per picul 133½ lbs.
C. Shanghai Tsatlee Rereol	350 " "
Shanghai Steam Filature 20/22	550 " "
Shanghai Shantung Filature Yellow 20/22	410 " "
D. Hand-reels (Native-reels. Tariff rate Rs. 2-8 per lb.)—	
Powmien	270 " "
Moochan or Kakadia	280 " "
Tsatlee	245 " "
Kahing	255 " "
2. Silk Yarn or Twisted Silk-organzine—	
13/15 2 ply per 100 lbs.	525
20/22 2 ply per 100 lbs.	520
3. Noils. (Price per 200 lbs.)—	
40/2 Washed Shanghai Mill	225
40/2 Unwashed Shanghai Mill	195
4. Spun Silk. (Price per 110 lbs.)—	
210/SSS Japan	420
140/2 Italy grey	315
5. Nitto Mixed (50 per cent. Spun Silk and 50 per cent. Rayon, price per 110 lbs.)—	
210/2	300
6. Artificial Silk Yarn. (Price per 200 lbs.)—	
Japan.	
120 Full Luster	116 to 108
150 Full Luster	112 „ 103
120 Dull Luster	135
150 Dull Luster	130

Twisted Silk Rayon—no quotations.

9. Staple Fibres. (Price per 200 lbs.)—

80/2	265
60/2	235
80/2 coloured staple fibre	315

We shall be glad to furnish any further informations on the above subjects if need be.

(3) *Demi-official letter No. 703, dated the 18th July, 1938, from F. I. Rahimtoola, Esq., President, Tariff Board, to Jivanlal Chunilal Chinai, Esq., Bombay.*

Many thanks for your letter, dated the 15th instant, enclosing the recent c.i.f. prices of all the items mentioned in my previous letter. I, however,

find some difficulty in accepting these prices. As you are aware, the present duty on raw silk is 25 per cent. *plus* 11 annas on tariff value. If I take the Japanese filature silk, the tariff value is Rs. 4-12 and the duty would be Rs. 2-1 per lb. If I add Rs. 2-1 to Rs. 4-10-10, then the price would be Rs. 6-11-10 which is nowhere near the present market price. I think there is some mistake with regard to these prices. Will you therefore kindly check them and let me have your considered reply?

(4) *Letter, dated the 21st July, 1938, from Nagindas Foolchand Chinai, Esq., to F. I. Rahimtoola, Esq., President, Tariff Board.*

We beg to acknowledge receipt of your favour D. O. No. 703, dated the 18th instant, addressed to our Mr. Jiwanlal Chinai and beg to inform you that as already intimated to the Board in Bangalore on the 30th ultimo, during August-September our market entered into forward contracts with Japan for October-November-December shipments on a large scale at much higher rates in hope of getting profit due to the proposed increase of the Tariff Value from Rs. 3-2 to Rs. 4-12 for the year 1938 and probable scarcity of tunnage owing to China-Japan War. These shipments, nearly 4,000 bales, arrived before the close of the year 1937 but the buyers' expectations were frustrated as the market here gradually declined as stocks were accumulating, both in consuming markets and in Bombay. During the past six months there was a big disparity between Japan prices and those at which Bombay were selling. We tried our best to bring a reaction by buying over locally about 500/700 bales but to no purpose.

If you will glance at the last report, dated the 15th instant, of the Mysore Silk Association you will find that on the 31st May, Japan Filature White 13/15-D grade were quoted at Yns. 700 first cost, *i.e.*, Yns. 728 c.i.f. (4 per cent. is the usual charge) which calculated at exchange Rs. 79 comes to Rs. 574. Market has since advanced nearly Yns. 100 owing to recovery in all the commodity markets in New York. For your further satisfaction (enclosed) please find daily quotations ruling at the Yokohama Silk Exchange from 1st June to date which will clear up the mystery. If any further proof is needed we shall be pleased to furnish.

There is absolutely no mistake in the recent c.i.f. prices submitted in our last letter.

13/15 White D grade first cost (4 per cent. must be added to get c.i.f. price such as freight, insurance, etc.):—

Date.	Quota- tions in Yens per 100 kins.	Date.	Quota- tions in Yens per 100 kins.
1st June, 1938 . . .	678	18th June, 1938 . . .	672
2nd „ „ . . .	...	20th „ „ . . .	671
3rd „ „ . . .	669	21st „ „ . . .	684
4th „ „ . . .	663	22nd „ „ . . .	697
6th „ „ . . .	660	23rd „ „ . . .	688
7th „ „ . . .	659	24th „ „ . . .	706
8th „ „ . . .	649	25th „ „ . . .	740
9th „ „ . . .	650	27th „ „ . . .	758
10th „ „ . . .	656	28th „ „ . . .	770
11th „ „ . . .	658	30th „ „ . . .	...
13th „ „ . . .	656	1st July, 1938 . . .	776
15th „ „ . . .	665	2nd „ „ . . .	792
16th „ „ . . .	670	4th „ „ . . .	790
17th „ „ . . .	680	5th „ „ . . .	800

Date.	Quota- tions in Yens per 100 kins.	Date.	Quota- tions in Yens per 100 kins.
6th July, 1938 . . .	794	14th July, 1938 . . .	799
7th " " . . .	786	15th " " . . .	808
8th " " . . .	776	16th " " . . .	825
11th " " . . .	770	18th " " . . .	800
12th " " . . .	761	19th " " . . .	813
13th " " . . .	786	20th " " . . .	825

(5) Letter, dated the 2nd August, 1938, from Nagindas Foolchand Chinai, Esq., Bombay.

For your information, we beg to quote Raw silk c.i.f. rupee prices ruling in China-Japan, during the fortnight ending 31st July:—

Chinese Hand Reel (Native Reels), T. V. Rs. 2-8 per lb.—

	Rs. A.	Rs. A.	
Tsatlee extra and No. 1 . . .	252 8	to 242 0	} 1 picul = 133½ lbs.
Chinkam white No. 1/2 . . .	272 0	„ 260 0	
Moochan Peacock (Kakadia), No. 3/4/5, Rs. 207-8 average	282 8	„ 262 8	
Kuhing Pine Stork No. 1/2 . . .	265 0		
Swan No. 3/4 . . .			
Shantung Lai Laivo . . .	367 8	„ 347 8	
Tsatlee R/Reel, T. V. Rs. 3-7 per lb.—	345 0	„ 327 8	
2nd choice . . .			
3rd choice . . .			

Japan Filatures 13/15—

	Yns.	
July 21st	838	} 100 kins = 132½ lbs.
July 22nd	839	
July 23rd	836	
July 25th	838	
July 26th	840	
July 27th	832	
July 28th to 30th—market closed.		

(6) Letter, dated the 20th August, 1938, from Nagindas Foolchand Chinai, Esq., Bombay, to Messrs. Shri Rama Silk Throwing Factory, Baswagundi Post, Bangalore.

We beg to acknowledge receipt of your favour, dated the 16th instant, about Japanese Hand Reel and note contents, *Japanese Hand Reel*. The total imports in India during 1937, according to our information, is about 800/1,000 bales, each 50 kins, viz., 50/6,000 lbs. The c.i.f. price paid was yens 780/760 or Rs. 620/600 per 100 kins for white and yellow quality respectively. There are no imports during this year.

(7) Letter, dated the 1st September, 1938, from Nagindas Foolchand Chinai, Esq., Bombay.

As promised, we quote below recent c.i.f. prices of qualities that are being imported at present and names of various kinds that are manufactured in China and imported into India:—

	Price per Picul.	Selling price per lb. ex-godown, inclusive of $1\frac{1}{4}$ per cent. discount and $\frac{1}{4}$ per cent. brokerage.
	Rs.	Rs.
1. Waste products—		
A. Punjam and Mathow from Canton . . . . .	..	..
B. Waste R/Reel from Shanghai . . . . .	..	..
2. Dupions—		
A. Thonkoon Duppion or Ghanta Native Reel . . . . .	..	..
B. Thokoon Duppion or Ghanta R/Reel . . . . .	..	..
C. Duppion Filatures . . . . .	..	..
3. Hand Reels or Native Reels—		
A. Kashing or Kahing No. 1, 2, 3	275—65—55	..
B. Moochan or Kakadia No. 1, 2, 3	302 $\frac{1}{2}$ —292 $\frac{1}{2}$ —282 $\frac{1}{2}$	3-14
C. Chinkam No. 1, 2	260—250	..
D. Tsatlee	252 $\frac{1}{2}$ —242 $\frac{1}{2}$	3-12
E. Pownien or Minchow	295	..
F. Shantung	265	..
G. Fanchow . . . . .	..	..
H. Shingon . . . . .	..	..
I. Minyang . . . . .	..	..
J. Lai-Minyang . . . . .	..	..
K. Hoyung . . . . .	..	..
L. Kubin . . . . .	..	..
M. Nanchong . . . . .	..	..
N. Wongchow . . . . .	..	..
4. All other kinds—		
A. Canton Steam Filature 20/22	330	4-4
B. Canton Steam Filature 28/32	315	4-2
C. Tsatlee R/Reeled	337 $\frac{1}{2}$ —352 $\frac{1}{2}$	4-7, 4-11
D. Shantung Filature	445	5-2
E. Minchow Filature 3rd choice	425	5-0
F. Japanese Filature White 13/15	600	5-12
G. Japanese Filature White 20/22	553	5-15
H. Japanese Filature Yellow 20/22	553	5-12

Particulars of Kashmir Silk sold by Kashmir Government, in Bombay, ex-Factory prices, per lb.

			Rs.		Rs.
1934, August	250,000 lbs.	Lotus	3-12	Tulip	3 10
1935, March	150,000	" "	4-0		--
1935, October	25,000	" "	6-12, 6-6		..
1936, August	75,050	" "	4-12, 4-13	Talip	4 10
1937, March	10,000	" "	6-13	"	5-15, 5-8
1937, June	20,000	" "	6-10		--
1938, March	25,000	" "	6-0		..
1938, June	50,000	" "	5-0		..

(8) Letter, dated the 20th September, 1938, from Messrs. Nagindas Foolchand Chinai, Bombay, to the Honorary Secretary, The Mysore Silk Association, Channarayana.

We beg to acknowledge receipt of your letter No. 107, dated the 15th instant and note contents. It is not customary in this market to keep regular statistics but from records of our own purchases, we give below the prices at which purchases were made by us during various periods mentioned by you.

Make.	1932.	1933.	1934.	1935.	1936.	1938.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Japan—						
210/2 SSS . . .	498	405	371	376	343	430
210/2 XXX . . .	..	..	..	315	365	400
210/2 AAA . . .	410	..	350	375	377	405
210/2 Fuji . . .	402	360	..	..	355	392
210/2 Kento . . .	..	..	..	562	355	380
Sanghai 210/2 Photo . .	..	322	312	..	..	..
	£ s.			£ s.	£ s.	
Nikku 210/2 . . .	6 8	..	..	4 10	3 5	..
Italian 60/2 Cor. . .	4 7	..	..	3 6	3 2½	..

(Cordonetts only imported from Italy.)

(9) Letter, dated the 27th September, 1938, from Nagindas Foolchand Chinai, Esq., Bombay.

We beg to quote below the recent c.i.f. prices of various qualities of Raw Silk imported into India:—

Kinds.	c.i.f. price per picul.	c.i.f. price per lb.
	Rs.	Rs.
Waste products—		
A. Punjam and Mathow, from Canton . . . . .	..	..
B. Waste R/reel, from Shanghai . . . . .	..	..
Duppions—		
A. Thonkoon Duppion or Ghanta Native Reel	200	1-8-0
B. Thonkoon Duppion or Ghanta Native R/Reel	190	1-7-0
C. Duppion Filature . . . . .	..	..
Hand Reel or Native Reels—		
Kahing or Kashing, choice 1, 2, 3	280, 270, 260	2-1-9, 2-0-6, 1-15-3
Moochan or Kakadia, choice 1, 2, 3, 4	280, 270, 260, 250	2-1-9, 2-0-6, 1-15-3, 1-14-0
Chinkam or Chinking, choice 1, 2, 3	250, 240, 230	1-13-6, 1-12-3, 1-11-6
Shantung Laivo-Middle	265	2-0-0
All other sorts—		
Canton Filature 20/22	335	2-8-3
Canton Filature 28/32	318	2-6-3
Shanghai—		
Tsatlee Re-reeled, choice Extra, 1, 2, 3	420/400, 390, 360, 350	3-2-6, 3-0-0, 2-14-9, 2-11-3, 2-10-0
Kath Re-reeled . . . . .	..	2-8-0
Moochan or Kakadia Re-reeled	347½	2-10-0
Minchow Re-reeled	447½	3-6-0
Chinkam Re-reeled	325, 315	2-7-0, 2-5-0

Kinds	c.i.f. price per picul.	c.i.f. price per lb.
All other sorts— <i>contd.</i>	Rs.	Rs.
Shanghai— <i>contd.</i>		
Shantung Filature	450	3-6-3
Japanese Filature 13/15	600	4-9-0
Japanese Filature 20/22	533	4-0-0
Japanese Thrown silk-organzine 13/15 (price for 100 lbs.)	495	4-15-3

- (10) *Demi-official letter No. 1183, dated the 19th October, 1938, from F. I. Rahimtoola, Esq., President, Tariff Board, to Jivanlal C. Chinai, Esq., Bombay.*

The Board understands that each consignment of imported raw silk is accompanied by a certificate from the conditioning house in the country of origin indicating the weight of silk. I shall be much obliged if you will kindly let me know as early as possible whether your sales of raw silk in India take place on the basis of the weight in the certificate of the conditioning house or on the actual weight of silk at the time of sale.

- (11) *Extracts from Demi-official letter, dated the 1st December, 1938, from Jivanlal C. Chinai, Esq., Bombay, to F. I. Rahimtoola, Esq., President, Tariff Board.*

Thanks for your D. O., dated the 19th October last, which through oversight remained unreplied so long, for which I beg to be apologized.

Conditioned Weight. In Madras, Calcutta all silks, either c.i.f. or ex-godown, are sold on basis of conditioned or net invoice weight and the bales are not reweighed.

In Bombay all c.i.f. sales are charged on conditioned or net invoice weight while spot ex-godown sales are charged on weight ascertained by reweighment in the presence of the broker or the commission agent as the case may be. But lately there seems to be more inclination on the part of buyers to prefer conditioned weight to which sellers will have to agree before long.

- (12) *Demi-official letter No. 1331, dated the 4th December, from F. I. Rahimtoola, Esq., President, Tariff Board, to Jivanlal C. Chinai, Esq., Bombay.*

Will you kindly on receipt of this letter let me have as early as possible the information as to how the spot prices in Yokohama are obtained and for what kinds of silks they relate to?

- (13) *Demi-official letter, dated the 7th December, 1938, from Jivanlal C. Chinai, Esq., to F. I. Rahimtoola, Esq., President, Tariff Board.*

I beg to acknowledge receipt of your D. O. No. 1331, dated the 4th instant.

Since last two years the daily quotation ruling on the Board in Yokohama for spot cargo are always telegraphed by Messrs. Mitsui Bussan Kaisha to their branches in Calcutta, Madras and Bombay. These are communicated to the buyers. The quotations relate to 13/15 white D grade Steam Filatures.

(14) *Demi-official letter, dated the 7th December, 1938, from Nagindus Foolchand Chinai, Esq., Bombay.*

We beg to quote below the recent c.i.f. prices of various qualities of Raw Silk imported into India:—

Kinda,	c. i. f. price per picul.
	Rs.
Waste products . . . . .	...
Duppons . . . . .	...
Hand Reel or Native Reels:	
Kahing or Kashing, choice	
1-2-3-4	292½; 282½; 272½; 262½.
Chinkam or Chinking, choice	
1-2-3	265; 255; 245.
Tsatilee Raw Silk, choice Extra,	
No. 1	278; 268.
All other sorts:	
Canton Filature—	
20/22	355.
28/32	330.
Shanghai—	
Tsatilee Re-reeled, choice Extra,	
No. 1-2-3	427½; 380; 350; 330.
Minchow Filature 14/16, 3rd	
choice	495.
Shantung Filature 16/20	497½.
Japanese Filature White 13/15	620.
Japanese Filature White 20/22	585.
Japanese Filature Yellow 20/22	577.
Thrown Silk-organzine (price per	
100 lbs.)—	
13/15	490.
20/22	482.

The Yokohama Silk Exchange quotations for November; December 13/15 White D grade first cost (4 must be added to get c.i.f. price such as freight, insurance, etc.):—

Date.	Quotations in Yens.	Date.	Quotations in Yens.
1st November, 1938 .	822	18th November, 1938 .	806
2nd " " .	810	19th " " .	795
4th " " .	813	21st " " .	790
5th " " .	805	22nd " " .	789
7th " " .	802	24th " " .	793
8th " " .	808	25th " " .	796
9th " " .	812	26th " " .	798
10th " " .	817	27th " " .	795
11th " " .	814	28th " " .	...
12th " " .	814	29th " " .	...
14th " " .	818	30th " " .	...
15th " " .	814	1st December, " .	807
16th " " .	811	2nd " " .	808
17th " " .	804		

(15) *Quotations of Silk Yarn on the 6th December, 1938, Supplied by Messrs. Nagindas Foolchand Chinai and Company, Bombay.*

C. I. F. Quotations—

Japanese Silk Yarn—G grade—Yen 690 per 100 Kin c.i.f. Calcutta—about Rs. 4.2 per lb. c.i.f. Calcutta.

Canton Silk Yarn—Rs. 340 per 100 Kin c.i.f. Calcutta—about Rs. 2.9 per lb. c.i.f. Calcutta.

Market Quotations—

Japanese—G grade—Rs. 5.12 ex-godown.

Canton—Rs. 4.7 ex-godown.

38. The Kollegal Silk Filatures, Ltd., Kollegal P. O., Coimbatore.

(1) *Letter, dated the 25th July, 1938, from F. L. Silva, Esq., Managing Director, The Kollegal Silk Filatures, Limited, Kollegal P. O., Coimbatore.*

On behalf of the Kollegal Silk Filatures, Ltd., I beg to submit herewith three copies of my reply to the Questionnaire circulated by the Board.

Reply to the Questionnaire of the Tariff Board, by F. L. Silva, Managing Agent and Director, the Kollegal Silk Filatures, Ltd.

1. The protection granted in 1934 proved altogether inadequate and had no effect on the prices of foreign silk. On the contrary there was a further fall in the import price in 1934 sufficient to counterbalance the increased duty.

In 1935, China prices rose by about 8 as. a lb. but in the meantime Japan silk of a quality superior to the China variety was placed on the market at a more favourable price. Thus the imports continued unabated. To make matters worse for Indian silk the Sericultural Department of the Kashmir State suddenly reduced its price to the same level as that of Japan silk.

Towards the end of 1936 there was an appreciable increase all round which continued for about a year. Feeling that there was some hope of prices improving at last, considerable areas were brought under mulberry both in Kollegal and Mysore. But that hope was not fulfilled. Prices fell again, especially after the commencement of the China Japan war, and mulberry gradually went out of cultivation.

18. In the case of a commodity like cocoons, which are harvested several times in a year, an index based on the average prices for the year is likely to be misleading. The price rises or falls according to the volume of the crop and is lowest in the case of the two largest crops of the year, which probably yield 50 per cent. or more of the total annual supply. The index, to be true, would have to take both price and volume into account; in other words, it should be built on a weighted average.

Again conditions have changed so materially since 1914 that it serves no useful purpose to take that year as the basis of the index. The Government of India have adopted the year 1928 as a normal year in the case of silk and if the index is derived from that year it will be seen that the conclusion of the last Tariff Board is not tenable, still more so when allowance is made for the general fall in prices of 37 per cent.

In this connection please see my answer to Query No. 24 below.

24. The maximum and minimum would hardly give a fair indication of the actual position. I give below the average price per lb. (excluding

commission and transport charges) of the cocoons purchased by me for my Bangalore factory since the year 1923.

	As. P.
1923	14 6 Small quantity.
1924	13 0
1925	10 0
1926	10 7
1927	10 7
1928	9 5
1929	9 0
1930	9 0
1931	6 0
1933	5 1
1935	4 9 Nov. and Dec. only.
1936	4 8
1937	5 11
1938	5 11 Jan. to March.

Prior to 1933 the cocoons were all of the Mysore variety. Since then both qualities have been purchased, the cross breed predominating from 1937. Double cocoons are not separated from reelable ones at the time of purchase and have to be paid for at the same price, which is fixed on the basis of fifth-day weight. They amount to over 10 per cent. of the lot, occasionally even 15 per cent.

26. The actual position is that between the Kollegal Silk Filature and the Government Silk Filature, at Mysore the production of raw silk at present by power driven machines amounts to less than 2,000 lbs. per month. But the former is under extension and a filature of 200 basins has recently been planned in Mysore. These two Filatures expect to produce about 10,000 lbs. a month.

There is no power production besides the above; but the aim of both Filatures is to extend their operations in course of time.

27. The figures will be furnished separately as they are deemed confidential.

29. The figures will be furnished separately as they are deemed confidential.

30. Indian Filatures are at a disadvantage only in respect of one of the items, which unfortunately is the one most important. In comparison with its quality the cost of the Indian cocoon is certainly excessive. If its quality is improved that disability will have been removed.

31. Personally I am of opinion that unless there is an assured supply of cocoons within a reasonable distance, a Filature of 100 basins is a safer proposition than one of 200 basins in spite of the economy which can be effected in overhead charges. In Kollegal we have made a compromise with 150 basins but that is due to the fact that Kollegal is exceptionally well situated in respect of the production of cocoons.

32. The maximum capacity of the Kollegal Filature (which is expected to be attained within the next few months) is 56,000 lbs. a year.

The Filature started work in December, 1937, with 40 basins and practically untrained labour. The production since then has been—

4,200 lbs. raw silk.

2,600 lbs. waste.

The production rises from month to month as the reelers gain experience; in July the output is expected to be 1,000 lbs.

34. The actual number of labourers employed at present is 116, some of whom are under training and others children working half time. About 3 of the number may be regarded as skilled labour.

When our programme is complete the number of labourers is expected to be about 375.

The supply of labour is adequate.

It takes a reeler or examiner about six months to acquire the minimum skill necessary; others acquire it in a month or two.

35. (1) In Kollegal reelers are at present paid from 2½ annas to 4 annas a day; but this rate will be gradually raised to Rs. 6 to 8 a month. We do not employ men for reeling, only women and adolescents.

(2) My experience leads me to think that for our work, Indian labour cannot strictly be termed inefficient. But continuous supervision—probably to a larger extent than in foreign countries—is absolutely essential for correct work. It is the lack of appreciation of the necessity for conscientious work that constitutes the chief deficiency.

36. The block value of the Kollegal Silk Filature on the date of commencement of work, viz., 25th November, 1937, stood as follows.

	Rs.
(a) leases and concessions	Nil.
(b) lands	3,000
(c) Buildings and water-supply	24,000
(d) Plant and machinery	27,750
(e) Other assets	5,250

On completion of the scheme now in hand the position will be as follows:

- (a) Nil.
- (b) Rs. 3,000
- (c) Rs. 40,000
- (d) Rs. 50,000
- (e) Rs. 7,000

37. The present-day cost of a similar plant would be—

	Rs.
(1) Buildings	75,000
(2) Plant and machinery	70,000
(3) Other costs	30,000

39. We have provided Rs. 70,000 for working capital. The amount has been found from the Share Capital.

42. It seems necessary that there should be a clearer understanding of the process of re-reeling and the necessity therefor. In the Japan filatures silk cannot be reeled straight off into skeins of the standard size because of the humidity of the climate. It is, therefore, necessary for them to reel on one set of swifts in the first instance and then to re-reel the same on to standard size skeins. In other cases, in China, for instance, silk reeled by hand is subsequently re-reeled by power into similar skeins. In the process of re-reeling certain defects come to notice and are removed. Thus the silk is rendered clean and can be readily unwound.

It must be remembered that in its original condition and because of its intrinsic quality, the thread is much cleaner than Indian silk. If adhering to the thread there were as much floss and soft waste matter as we find in Indian silk, I doubt if it could be entirely removed in the process of re-reeling except at a prohibitive cost. I am not aware of any mechanical contrivance devised for the purpose by means of which it could be automatically removed without stopping the machine an endless number of times.

In India filature silk is, as in Europe, reeled into standard skeins in the first instance and then examined in detail for defects and blemishes. As for charka silk, the weaver who uses it does not demand a standard size. It is only in the case of the small proportion dealt with in Throwing Mills that this becomes a desideratum; but even in this case winding machines have been made adaptable to various sizes of skeins. Thus there is no absolute necessity for re-reeling as in Japan.

As for cleaning the thread, Throwing Mills are provided with knives and clogs which enable this to be done in the process of preparing thrown silk. No doubt their work would go much faster if the thread were already cleaned by being re-reeled; but the latter is an expensive process, and unless absolutely essential must be considered wasteful.

Ninety per cent. or more of raw silk is thrown by hand. In this case the thread has to be transferred from the hank to a sort of cone mounted on a reed during which operation every inch of the thread passes between the fingers of the operator, enabling him or her by mere feel, to detect the blemish and remove it by instantaneously stopping the unwinding.

This sort of unwinding is an intermediate stage in weaving indispensable in the process of throwing and automatically leading to the next step. No re-reeling can be more effective than this. On the other hand this process would not be saved if the silk used were re-reeled silk. The work would be done faster, no doubt; but the comparative saving of time and labour (and therefore cost) would bear no proportion to the expense involved in re-reeling the silk before it reaches the weaver.

It will be seen, therefore, that under Indian conditions there is no real necessity for re-reeling. Of course, the quality of raw silk would be improved if it is re-reeled; but the question is whether it is an economic proposition to do so and whether the additional cost, which is nothing less than 8 as. a lb. is justified when the silk is used up in the country and not required for export.

If the silk is to be marketed as raw silk it is not enough to unwind it from the hank and wind it round the "alte" (the cone referred to above). It has to be re-transferred from the "alte" to some form of hank in which it can be placed on the market (to be transferred once again to another "alte" by the weaver or hand throwster before it is made up into a warp or wound on to a bobbin). It will be readily seen that if this has to be done on a large scale it can only be done by power machines specialising in this work. That again will involve large capital outlay and additional expense.

If a filature were to re-reele its raw silk it would have to duplicate its machinery by the provision of a re-reeling plant and yet it would not be able to remove the defects half as effectively as by means of the unwinding done by hand.

43. I have tried the Japanese system of reeling on small reels and then re-reeling into standard size; but it has not helped me to remove the defects in the silk.

I have tried formerly and am now once more attempting to do re-reeling by the country method with the help of women of the weaver class trained in the work. The out-turn is without a blemish but the cost is prohibitive. A woman working the whole day can scarcely give one-third of a pound of 20/24 silk. The lowest wage is 2½ annas a day, which means that the cost is 8 as. a lb. To this, however, has to be added the cost of re-winding the silk from the "alte" on to the standard skein, for which purpose some basins, which otherwise would be reeling, have to be reserved. Thus the cost of re-reeling filature silk would be nothing less than 10 to 12 annas a lb. and a re-reeling plant would have to be installed before the work could be attempted on an adequate scale.

I make no allowance for the waste which occurs in re-reeling because it cannot be avoided under our examination system also.

But I must add that the throwing mill or the weaver-throwster derives a distinct advantage from re-reeled silk.

48. To my knowledge there has been no improvement with regard to exports of raw silk.

The establishment of a Conditioning House would certainly help to stimulate the trade.

49. There has been no variation from the figures given to the Tariff Board on the last occasion.

50. Our price for distant markets is the same as that for the home market, except for the addition of forwarding charges and freight.

51. So far as filature silk is concerned it requires no further grading or sorting.

52. There is no marked difference.

54. It is difficult to suggest that any particular kind of imported silk competes with any particular kind of Indian silk under the circumstances of the last few years. The determining factor is the price and if the weaver finds that the cost of the fabric he plans is within his limit, he buys the best silk available in his market, irrespective of whether it is Indian or foreign, hand-reeled or filature.

This is the case both with the power and the hand-loom weaver.

55. In the Indian market artificial silk yarn does not directly compete with natural silk yarn to any appreciable extent, because of the nature of the fabrics for which it is used. Thus a saree or shirting woven out of artificial silk yarn cannot be expected to take the place of natural silk wear. But imported artificial silk fabrics which are hardly distinguished from natural silk ones or so finely woven as to be equally acceptable do undoubtedly tend to diminish the consumption of natural silk, whether Indian or imported.

To a certain extent Indian Mills which might have been expected to use natural silk for mixtures with cotton for fine fabrics find a suitable substitute in artificial silk. But for these facts the consumption of natural silk in India (imported and Indian together) which has remained more or less stationary during a whole generation should have been far greater than it is at present.

Staple fibre has not up to now come into competition with natural silk.

57. It is generally held that in respect of winding quality imported silk is superior to Indian silk. This is due to the fact that small particles of waste matter adhere to the thread of the Indian cocoon and it is difficult and expensive to eliminate such matter.

This, however, is a disadvantage to which undue importance should not be attached, because it is only felt in power factories (Throwing Mills) which deal with a small fraction of the silk consumed in the country. When the unwinding is done by hand in cottages, Indian silk is found quite satisfactory in this respect.

58. The continuous fall in the Far Eastern exchange has undoubtedly accentuated the competition but it is difficult to estimate the extent of such competition.

61. 60 to 65 per cent.

62. The Mysore Spun Silk Mill offers 12½ annas a lb. for our waste but I expect to get a better price from the foreign market. Under present conditions I consider one rupee per lb. a fair price for filature waste of first quality.

63. The greater portion of the cocoons now available are from cross breed seed but the percentage of waste does not appreciably differ from that of the indigenous variety.

65. The whole of the machinery can be manufactured in India and is now being actually manufactured to our order. I have no recent foreign quotations; but the price of the basins we have ordered is about 40 per cent. of what I paid for imported basins in 1929.

66. There was a good deal of activity in the waste market in 1936 and all accumulated stocks were cleared. Since then there has been a fair demand and the Mysore Spun Silk Mill expects to absorb most of the Kollegal and Mysore output. But it cannot afford to pay a satisfactory price unless the duty on imports of spun silk yarn is substantially raised.

68. The method of classification now adopted is more satisfactory than that in vogue till 1935, and the system of tariff valuation may be accepted as suitable unless the duty can be assessed on invoice value.

But it is not enough to group all China filature and re-reeled silks under one omnibus heading "all other sorts". An attempt should be made to divide them into certain main classes and any quality of which the import amounts to 15 per cent. should be separately classified even though the duty may be alike.

69. (a) As recommended by the Board on the last occasion the amount of protection should be not less than that required to bring up the landed price of foreign silk to the fair selling price of the corresponding quality of Indian silk. It is suggested that it should be determined in the following manner:—

- (1) The cum-duty price of imported filature and re-reeled silk should be equal to the fair selling price of first quality charka silk; and that of hand reeled silk to the fair selling price of second quality charka silk.
- (2) The price of imported silk should not be arrived at by simply averaging the prices of various qualities as was done on the last occasion. Even a weighted average as adopted by the Government of India results in glaring inequalities and hardships. Thus under the Textile Bill of 1934 Canton Filature Silk which then represented 48 per cent. of the imports escaped with a duty of 14 annas as against Rs. 1-14-7 to which it ought to have been assessed, while yellow Shanghai of which the imports amounted to 34 per cent. had to pay 14 annas instead of 4 annas only. Foreign silk should, therefore, be divided into a few categories according to the volume of imports and any quality of which the imports amount to 15 per cent. should form a class by itself. Thus Japan filatures or Canton filatures would each form a separate division; so would Minchow R. R. or any other quality of which the imports have averaged 15 per cent. The rest would be grouped together and the average determined by price and volume.
- (3) The *ad valorem* duty should be raised to 50 per cent.
- (4) The difference between the landed price *plus ad valorem* duty of each category of filature and re-reeled silk and the fair selling price of first quality charka silk, should be charged in the form of a specific duty. The same should be done in the case of hand-reeled silk, the Indian quality to be compared with it being second quality charka silk.
- (5) Indian filature silk should be given a bounty equivalent to the difference between its fair selling price and that of first quality charka silk.
- (6) The duty on imported thrown silk should be raised so that the cum-duty price becomes equivalent to the fair selling price of Indian filature silk *plus* Rs. 2 per lb. representing cost of throwing. The conclusion of the last Tariff Board on page 106 is incorrect. Further the price of imported thrown silk now is much less than in 1933. As regards the loss in boiling off,

that occurs in all cases, whether of foreign silk or Indian, hand thrown or machine thrown.

- (7) The duty on spun silk should be the same as that on filature and re-reeled silk.

It will be seen that this method is fair to all interests. While Indian filature and charka silk receive their due and each receives no more than its due, foreign silk is taxed within reasonable limits and on its own merits. The handloom weaver requiring a cheap quality is not unduly taxed for the benefit of the superior quality reeler. The Indian filature reeler is not placed at the mercy of the charka reeler and some encouragement is held out for the creation of new filatures, so essential to the development of the industry. Above all the price to the consumer is not raised to the same extent as would be the case if filature silk were to be the basis of duty instead of charka silk.

On the figures found by the last Tariff Board, modified as suggested by me, the bounty payable to filature silk would be about one rupee per lb. Apparently Kashmir silk, being a State monopoly, would not be entitled to such bounty. It would thus be payable only in Madras and Mysore to the extent of not more than a lakh of rupees till the end of 1939. The amount will rise only gradually as fresh filatures are planned. But I do not anticipate that it will exceed five lakhs at the end of five years. In any case it will be amply covered by the additional duty derived under effective protection.

(b) The present form of a specific duty in addition to an *ad valorem* duty is suitable.

(c) Protection should be given for a period of not less than ten years, but the specific duty may be reduced by 25 per cent. after five years and by another 25 per cent. after seven years.

The protection given on the last occasion having proved totally ineffective the industry itself has not been in a position to take any measures to improve its condition. Secondly both the Tariff Board and the Government of India recognised that the master key to permanent improvement lies in scientific research. But the funds placed by the Government of India for this purpose at the disposal of the Provincial Governments were very meagre and were not supplemented by the latter out of their own resources. In any case scientific research takes time and it takes a further period of time for its conclusions to be put into practical application on a commercial scale or for the industry to respond. Experiments on the adaptability of foreign seed can hardly be completed in less than five years and the planting of tree mulberry on an adequate scale should require a much longer period. If, therefore, protection should cease before the scheme dictated by research comes to fruition, the protection will ultimately be of no avail.

70. (a) There is no reason to apprehend that the grant of protection to the extent recommended above will have a prejudicial effect on either the silk textile industry or the handloom industry, especially as protection to raw silk must carry with it a corresponding addition to the duty on imported piecegoods.

Though the additional duty would raise the price of cloth, the increased price would still be below that which prevailed only a few years ago and not likely to be regarded as a serious burden by the consumer. The consumption of raw silk in India (Imported and Indian) is remarkably steady; it was not much below the present level when prices were twice as high as at present; nor did it become very much larger in consequence of an unprecedented fall in prices. There is a demand for a certain minimum; and if that demand is not met from Indian silk it is made up from imports. Enormous quantities of natural and artificial silk piecegoods have been imported in recent years; those may have checked the expansion of our silk weaving industry, but there is no evidence that they have seriously affected the existence of that industry. The conclusion seems to be that

a moderate increase in the price of raw material will not adversely affect the weaving industry.

(b) Nor is there any likelihood of the hand-loom industry being threatened because in most parts of the country the hand-loom weaver works for the sowcar and not on his own account. Prominence has been given to the statement that his wages have decreased but one of the causes that have led to this is the fact that the raw silk supplied to him is of a better quality than in the past, resulting in a larger output.

No other industry is likely to be affected by the above proposals.

72. The protection given was not beneficial to the industry in the least. The stimulus to charka silk in 1936 and 1937 was imparted by a rise in the prices of foreign silk and not by the duty.

74. I feel assured that if the industry is adequately protected it will readily respond to such measures as are taken in its behalf and co-operate with the authorities, bringing about a reduction in the cost of producing silk by 50 per cent.

The principal items of cost in which such reduction can be effected and the means to be adopted are:—

- (a) reduction in the cost of leaf by substitution (in part at least) of tree mulberry for bush mulberry.
- (b) improvement in the quality of the cocoons by more intensive research in the direction of cross breeding or otherwise.
- (c) a serious attempt to introduce univoltine races (side by side with the Mysore variety in the first instance).
- (d) the development of filatures.

(2) *Letter dated the 26th July, 1938, from the Managing Agent and Director, The Kollegal Silk Filatures, Limited, Kollegal P. O., Coimbatore.*

In continuation of my letter dated yesterday I beg to submit herewith for the consideration of the Board three copies each of notes on the following subjects:—

1. Production of silk.
2. Cross breed seed.
3. Cultivation of univoltine races.
4. Measure of protection.

Enclosure I.

Production of Silk.

On the last occasion an attempt was made to arrive at the figures of the production of raw silk by ascertaining the acreage under mulberry and the average yield of cocoons per acre. I venture to suggest that this time such enquiry should be supplemented by another test, viz., the production of silk waste.

2. Until the Mysore Spun Silk Mill started operations a few months ago there was no demand for silk waste in India except for a small fraction of throwster's waste. Practically the whole of it used to be exported overseas. Now we have accurate statistics of sea-borne exports and they distinguish mulberry waste from wild silk waste and cocoons (pierced, etc.). The production of silk waste can therefore be ascertained in a satisfactory manner.

3. We have also a more or less sure standard of determining the quantity of raw silk from the output of silk waste, since we know the proportion of waste to silk. In Mysore it is 50 per cent., in Bengal it may be taken at about 100 per cent. and as for Kashmir we have exact figures of

production. Thus it will be possible to arrive at the result with reasonable accuracy.

4. We have other means also of testing the figures. Thus in Mysore and Kollegal, where the whole of the waste is exported by rail to Madras (except an insignificant quantity to Bombay) we have rail-borne statistics with which we can check our calculations. Bengal, Assam, Central India and Kashmir waste are exported either through Madras or Calcutta and the figures of export can be compared with the probable output of silk in those parts of the country. It is not necessary that the figures should correspond from year to year. It is enough if we get results over a series of years,

5. Judged by this list, there is reason to believe that the production of 740,000 lbs. in 1931-32 reported by Mysore was an overstatement; my own calculation indicates 600,000 lbs. to be the more probable estimate. Similarly I feel that the total production for India should be considerably less than 2 million lbs., as estimated by the Board. In her palmiest days India did not produce more than three million lbs. the largest share being contributed by Bengal. But for many years prior to the depression the Bengal industry had been steadily declining. So far back as 1917 Mr. Maxwell Lefroy estimated the output at 600,000 lbs. Though the Board considered this an "underestimate" there is nothing to suggest that they would put the figure higher than one million lbs. After that nothing occurred to arrest the decline; on the contrary after 1929 the Indian industry was strangled by foreign competition. It seems therefore natural to expect that in 1931-32 the production must have fallen much below the million lb. standard.

6. This time the test can be applied with greater certainty than before, because there are no accumulated stocks of waste in the country. It is believed that during the years 1936 and 1937 all stocks were cleared out of the country and since then also there has been a fair demand though the price is much below the level to which we were accustomed in the past.

Enclosure II.

Cross Breed Seed.

I venture to suggest that the Board should on this occasion make a closer enquiry into the methods and results of cross breeding. It is true that under our present system the rearer gets a quicker harvest from cross breed seed and a larger yield; he also gets a higher price for his cocoons. It is also true that the silk content of the cocoon is larger by about 10 per cent. than that of the indigenous variety. But so far as the reeler is concerned he finds that 10 to 15 per cent. of the cocoons are "double" and unreelable and for these he can only get about one-fifth of the price which he actually pays. The consequence is that it costs no less to reel with cross breed cocoons than with the indigenous variety and the price of finished silk continues as high as before. The ultimate interest of the industry and therefore of the rearer are in no way promoted but are prejudicially affected. It is said that the percentage of doubles is susceptible of reduction though not of elimination; but our experience is that it is rather on the increase than otherwise.

2. The practice is to import foreign seed at long intervals and to utilise it in the production of cross breeds. The seed is univoltine (or bivoltine) and nature has designed that it should produce only one breed (or two) in a period of 12 months. One would expect that after harvesting the first crop out of that seed, such portion as is reserved for future seed would be allowed to retain its character as univoltine and the seed eggs laid by until the corresponding season in the following year. We however know a method of converting them into polyvoltine ones by artificial treatment and, applying it, raise another crop immediately and follow it up with others just as in the case of the Mysore variety. It is no longer univoltine but after the first generation, a polyvoltine breed acclimatised to India.

3. The purity of the foreign race may be maintained; but it stands to reason that it should become degenerate and its vitality impaired for cross breeding purposes. Nor can the results derived from later crops be equal to those of the first crop. Not only the silk content but the quality of the silk also has to be considered in this connection. In actual practice we reelers find it no different from the home variety.

4. I venture to think that foreign seed used for cross breeding purposes should be renewed much more frequently than at present. Three crops are raised in Japan, one in China, one each in several other parts of the world including Kashmir at different times in the year. It should not be difficult to get the small quantity of seed required from each of these countries once a year.

5. The reeler naturally prefers the cross breed seed because of the profit he derives and every effort is being made to meet the demand. One result is that of late the local variety has not been receiving sufficient attention and is distinctly tending to deteriorate.

6. I suggest that this matter calls for serious enquiry and further research from the point of view of the ultimate cost to the reeler. The real test is the market price of silk: if that cannot be lowered--and I submit that cross breed seed has not helped us to do so--the scheme has to be looked at from a fresh point of view.

Enclosure III.

Cultivation of Univoltine Races.

I beg to submit a copy of a note on the possibility of the introduction of the univoltine cocoon which I placed before the Mysore and Madras authorities in October, 1936. The former, and in particular, Mr. N. Rama Rao, condemned the scheme as totally unsuitable for reasons which, I regret, have failed to convince me; but the Director of Industries, Madras, very kindly recommended a trial being carried out in Kollegal and the Government of Madras were pleased to sanction a sum of Rs. 5,000 for the purpose.

2. Accordingly the Department imported a thousand ounces of seed from Franco and Kashmir last year for use during the current year. Small parcels of seed were tried out in March and April but with indifferent success obviously because of the unsuitability of the season. Further rearings on an adequate scale were to have been taken in hand in May and June; but unfortunately the rains have failed us this year and it has not been possible up to now to attempt a proper trial.

3. I see no reason to think that it is not possible to introduce univoltine seed in India, either in replacement of the indigenous variety or side by side with it as in the case of the "Barapolo" in Bengal. Such seed is successfully cultivated in our farms for cross breeding purposes throughout the year. In any case there is not likely to be any serious difficulty in raising crops in Kollegal and Mysore between May or June and November.

4. The univoltine races can be reared on bush mulberry; but even if tree mulberry is considered indispensable it is possible to get two or three crops of tree leaf. The last Tariff Board recorded the opinion that in Bengal trees yield leaves six times in a year.

5. There is no doubt whatever about the economic results of the introduction of univoltine races in India; it would in fact revolutionise the industry, put an end to the necessity for protection and enable us successfully to compete with Japan.

6. I therefore submit that the Board should urge that a trial on an adequate scale should be carried out in various parts of India. If isolated experiments have failed in the past that fact should not discourage a serious attempt being made afresh.

7. I may add that in the case of the small trials carried out in Kollegal no trace of pebrino was detected.

Enclosure IV.

The Mysore Cocoon versus the Univoltine Cocoon- the Challenge.

In the course of our interview at the recent Simla Deputation, the Chairman of the Sericultural Committee of the Imperial Agricultural Research Council plainly said that in his view it would be a mistake to "bolster up" the Indian Sericultural industry, which was unable any longer to hold its own. His idea seemed to be that artificial silk was steadily displacing natural silk and that the latter was bound to go to the wall. Whether we agree with this opinion or not, the fact cannot be ignored that it has been put forward from an authoritative quarter; and those interested in the silk industry must regard it as a challenge to be met at all costs.

Our Costs too High.

2. Unfortunately it is only too true that the cost of production in Mysore is very high compared to the cost of outside silk. At the time the Tariff Board held its enquiry, the Kashmir cost was even higher than ours. But the measures since adopted by Kashmir have enabled it to reduce its price by one-third and to-day Kashmir is selling its silk at a price much below even the Japan rate, with the result that it is unable to meet the demand (which exceeds its present production of nearly three lakhs). The Kashmir authorities frankly admit that they have been working at a loss; and only hope that the accounts of their fiscal year just closed (15th October) will not show a balance on the wrong side. We however are concerned only with their selling price and as their aim is to keep their prices on a level with Japan prices, and as our cost of production far exceeds the latter, our situation is one of the utmost peril. If we want our industry to survive, it is absolutely essential that we must succeed in bringing down our costs.

How to reduce the Cost.

3. The directions in which we must strive for the fulfilment of our object are well known:—

- (1) cheaper seed;
- (2) a larger yield of cocoons and of their silk content;
- (3) cheaper leaf; and
- (4) reduced cost of reeling.

Price of Seed.

4. As regards the first, the price of seed can hardly be reduced much further.

Better Cocoons.

5. With regard to a better variety of cocoons it must be confessed that in spite of the devoted and strenuous work carried out by the Department for more than a decade, the result is far from encouraging. It is true the yield of cross breed cocoons per oz. of seed is appreciably larger than in the case of the pure Mysore race and the period of rearing shorter. Further their gross silk content is a little higher 13.3 against 12.3 per cent. But these advantages are neutralised (and sometimes more than neutralised) by reason of the fact that 10 to 15 per cent. of the cross breed crop consists of double (unreelable) cocoons. The rearer is benefited to some extent; but the reeler derives no profit and the price of silk is not affected. If the cross breed cocoon is to come to the help of the industry, it must be improved to a degree approximating much nearer to its foreign parent, the univoltine cocoon. Whether that result is at all possible with the Mysore cocoon is more than one can predict; but judging by past progress it will take years to achieve.

Reduction in Reeling Costs.

6. Taking next the fourth means of relief, viz., reduction in the cost of reeling, the scope is extremely limited. Increased production may reduce the over-all cost to a slight extent; but increased production presupposes an enhanced demand, which can only arise from a reduced price.

Cost of Leaf.

7. It remains to consider how far a saving can be effected in the cost of leaf, which forms the most important item in the bill, comprising as it does two-thirds of the cost of production of cocoons. The area under mulberry is 30,000 acres, of which perhaps 25,000 acres are dry or rain-fed and the rest irrigated. Apart from the initial cost of about Rs. 75 per acre once in 15 years or so, the maintenance of our bush mulberry costs Rs. 84 per acre in unirrigated tracts and twice that sum in irrigated areas. In other words we have to spend no less than 30 lakhs of rupees a year on the leaf, whereas Kashmir, raising an univoltine cocoon and depending on tree mulberry alone, has no expenditure to incur on this account, except that entailed on the maintenance of about 16 Nurseries, amounting to Rs. 80,000 a year. Tree mulberry has been advocated in Mysore for a long time but the progress made in this direction has been extremely slow. It was reported to the Tariff Board that the number of trees planted was about 6,400 between 1926 and 1932. The latest Administration Report of the Department shows the number of saplings issued during the year as 1,700. When it is remembered that the number of trees required to replace 30,000 acres of bush is no less than 67 lakhs it will be realised that so far we have not attempted to touch even the fringe of the problem. There is no reason why we should depend upon saplings alone. It should be possible to rear trees from seedlings and cuttings as well; in fact without recourse to this method it would be impossible to achieve the object in view.

Wholesale Planting Urgently called for.

8. The first step therefore seems to be the initiation of a much more active policy in this respect than in the past. The grant of a bonus for mulberry "tapes" as at present planned is hardly likely to be effective, and other measures should therefore be adopted without delay. The Forest and Agricultural Departments and District Local Boards should co-operate with the Sericultural Department in maintaining nurseries. In Sericultural areas mulberry trees should be planted where possible in Forest Reserves. And Village Panchayats should be placed under some form of compulsion for maintenance of trees in village commons, public avenues and Government waste lands. At the same time they should be given a small remuneration for this work until such time as the trees are established, after which they will find the trees a source of revenue. The cost will not be material; in any case such outlay will have done much more to reduce the cost of production and create a permanent asset than a much larger sum spent on other schemes at present approved and included in our programme. Nor will it be long before the rearer follows the lead of Government and appreciates the need for planting trees, especially on the boundaries of his fields and alongside the hedges of his own land.

Tree and Bush Combined.

9. One method of promoting tree mulberry, which is likely to be more successful than any other does not seem to have been sufficiently exploited hitherto. When the pruning season arrives, the cultivator should be advised to leave, at intervals of 15 (to 20) feet, one bush standing, and to trim this bush in such a manner as to develop into a tree. By this method we could get on every acre of land about 150 trees within 5 or 6 years. Thereafter the bushes would be rooted up, the trees left standing and the field thrown open to ordinary cultivation. Our staple crops such as ragi, cholam,

and horse gram will suffer no detriment from the trees; on the other hand the trees will benefit from the manure applied to the latter, and will be looked after more surely than those planted elsewhere. The leaf yield from 150 trees is computed at 4,000 lbs. per year and from an acre of mulberry at 6,000 lbs. Thus two-thirds of the required leaf would be provided within six years without any expense or effort. Not only so, but the cultivator will derive a profit of Rs. 30 or 40 per acre from the land made available for ordinary crop.

A Substantial Fall.

10. It will be readily seen that if two-thirds of the leaf supply can be gathered from trees for which the rearer has to pay nothing, and the balance from other sources on payment of a nominal charge, a substantial fall in the price of cocoons can be confidently looked for.

Is the Fall Substantial Enough?

11. Our situation, however, is a desperate one and the question that confronts us is "How long will it take before the "substantial" fall anticipated above can be compassed"? And will such a fall, by itself, and without material help from the other measures referred to in paragraph 3, be commensurate to the needs of the present time, *which call for nothing less than a 50 per cent. reduction in the price of our silk?*

A New Method.

12. Without however giving a positive answer to this question, it may be worth while to consider whether it is possible to effect a change in our traditional methods and to achieve our object by some other method, hitherto unexplored. To put it in a different form, *are we well advised in continuing to depend on the Mysore multivoltine cocoon or is it time to give it up and to cultivate the foreign univoltine cocoon?*

The Mysore Cocoon—Its Advantages.

13. The main advantage of the Mysore Cocoon is that it is multivoltine, enabling a rearer to raise 5 to 6 crops a year and a reeler to carry on operations with little or no capital. In theory this is an advantage of the highest importance. But in actual practice and when faced with foreign competition, the advantage is wholly lost under the weight of the many disadvantages to which the Mysore cocoon is subject.

Its Disadvantages.

14. In the first place the cocoon is much smaller in size and in silk content than the univoltine cocoon. Secondly, the proportion of "floss" which goes to reduce the silk content is larger. Thirdly, the defects of "hairiness" and of "nibs" and "slugs" adhering to the inner thread are more pronounced than in the foreign cocoon, entailing larger expenditure in the operation of "cleaning" the finished thread.

The Cross not much Better.

15. The cross breed cocoon is no doubt superior to the pure Mysore cocoon; but as pointed out in paragraph 5 above, it is much below requirements.

The Dearest Cocoon in the World.

16. However startling this statement may appear it is an undoubted fact that the Mysore cocoon costs, relatively at any rate, *more than any other cocoon in the world.* That fact alone is enough to establish that it is definitely uneconomic and that it is absolutely impossible for an industry based on it to withstand outside competition. While the Mysore cocoon

costs 4 to 5 annas a lb. the price paid in Kashmir to-day for a cocoon twice as productive is $2\frac{1}{2}$ annas only. In other words our cocoon cost, per lb. of silk, varies from Rs. 3-12 to 4-12 while the Kashmir cost is only Rs. 1-9. Evidently the Japan and China cost is much below our own, judging from the price of raw silk. That being so, even a fifty per cent. reduction in the price of our cocoon cannot save the situation, since our cocoon will still be inferior to the univoltine both in respect of volume of outturn and of length and diameter of filament, which latter is an appreciable factor in working costs.

The Univoltine Cocoon—Saves 40 Lakhs a Year.

17. As against these very considerable handicaps what are the advantages likely to accrue from the adoption of the univoltine cocoon? First and foremost is the fact that if we confine ourselves to 2 crops a year, we can carry on with the help of tree mulberry alone; and thus be in a position, in course of time to set free, for the cultivation of ordinary crops, 30,000 acres of valuable land, which is now absorbed for bush mulberry, because we have to harvest 5 or 6 crops of leaf. Expressed in terms of money this means on the one hand a saving of 30 lakhs of rupees, and on the other, additional income from 30,000 acres of cultivated land—say, another 10 lakhs. At first sight it may appear that the income from 5 or 6 crops of multivoltine cocoons should necessarily be higher than that derived from 2 univoltine crops. But when this gain of 40 lakhs which is more than the value of the entire output, is taken into account and when the possibilities of the univoltine cocoon are properly considered there can be little doubt as to which method is preferable.

Facilitates Reeling Operations.

18. The univoltine cocoon will have a marked effect on reeling operations. With an assured supply of cocoons stored in the godown and the possibility of sorting and grading them according to quality—an advantage not possible with the Mysore cocoon—the establishment of filatures will be a comparatively easy matter. The charka in so far as it is not displaced, will develop on factory lines. The production of silk without regard to uniformity of size of standard will cease. The supply of a standard quality of raw silk will enable us to maintain a Conditioning House and to enter large markets with confidence.

Reduces Cost of Reeling.

19. As regards cost of reeling there is no doubt that the univoltine cocoon, with its larger size, longer filament and heavier denier, resulting in fewer breaks, is much the more economical of the two.

Stabilises Prices and Helps Orderly Development.

20. At present there is a most unhealthy competition for cocoons on the part of local charka reellers and the filature is at their mercy. So long as that is the case, the creation of more filatures is out of the question. With fewer crops a year this competition and the perpetual variation in prices will disappear and the industry will develop on orderly lines. The stabilising of prices the opening up of cocoon markets, the creation of financing agencies for buying up, conditioning and storage of cocoons, will all be possible if we limit the number of crops. Yet another encouraging feature is that unlike the Mysore cocoon, which requires to be steamed or otherwise "conditioned" at appreciable expense, to yield the best results, the univoltine can be simply dried in the sun. More than three-fourths of the cocoons received at the Kashmir factory are sundried.

Simplifies the Seed Problem.

21. No branch of the industry gives rise to greater anxiety than that which provides the seed. Even under normal circumstances the supply of

seed cocoons at the right time has to be organised at an enormous expenditure of energy and effort. But any disturbing factor such as the failure of rain at the time anticipated or an unexpected shower for which one is not prepared, is apt to throw everything * out of gear. There is always a liability to loss either of seed or leaf or the risk of failure of the crop due to unsuitable leaf. Moreover the time available for testing the seed is strictly limited and the work has to be done in feverish haste. The consequence is that barely 25 per cent. of the seed consumed is controlled, much less tested.

22. With univoltine seed however the case is entirely different. The eggs take months to hatch and can be tested at leisure with the help of a limited staff. Hence it would be easy to supply *cellular seed for the entire requirements of the State*. It need hardly be added that the provision of seed is the one dominant factor in the situation, and if the univoltine cocoon does nothing more than enable us to solve the seed problem its adoption would be justified on that ground alone.

Benefits from the use of the Univoltine Cocoon.

23. To sum up, we may expect to derive the following benefits from the use of the univoltine cocoon:—

1. Additional income from 30,000 acres of land about Rs. 10 lakhs.
2. A saving of two-thirds in the cost of rearing the worm, or over 30 lakhs of rupees a year.
3. The provision of cellular seed for our entire requirements.
4. Reduction of reeling costs.
5. Stabilisation of prices, admitting of long-term contracts.
6. Orderly development of the industry in all directions.
7. A uniform standard of silk.
8. The ability to cater to any market in large quantities.
9. The establishment of a Conditioning House.

With these expectations we can be confident of competing Kashmir silk if not foreign silk also. When once the mulberry trees are established, say from 5 to 7 years hence, *we shall no longer be in need of protection.*

The Share of Government.

24. And all this will be possible without calling upon Government to initiate any expensive scheme or render any extraordinary help such as is contemplated by our present programme. Even the legislation for the control of seed operations, now under discussion, will be unnecessary. The only direction in which the active help of Government is required is the creation of nurseries and the planting of trees, which does not entail very heavy expenditure. It is very unlikely that there will be any increase in the expenditure incurred on the Department. It is quite possible that it may decrease. The introduction of foreign seed, though a revolutionary step, will not involve any serious disturbance in the existing economy of things.

A Million lbs. of Silk from two Crops.

25. If this policy is decided upon, the most favourable time for the issue of the seed can be readily determined. There will be no uncertainty as at present, as artificial methods will enable us to advance or retard the date of hatching with almost mathematical precision; and the eggs need only be incubated in such quantities as may be required to meet the demand from each area. There will be no lack of leaves for a large harvest and the leaves will not be of forced growth as at present but rich and nutritious ones. In Kashmir, in the year 1929-30, 51,750 ozs. of seed were issued to

* As has happened this year (1938) for want of rain.

55,000 rearers. Taking the produce per oz. at 1 maund (82 lbs.) which is the normal yield at present, the outturn from one crop would amount to 4,489,500 lbs. of cocoons, sufficient for the reeling of 450,000 lbs. of silk. This position could be easily equalled if not excelled, in Mysore, where we have 30,000 acres of mulberry in 2,500 villages and 2 lakhs of families engaged in sericultural operations, of whom one half may be presumed to be familiar with rearing. Our normal consumption of seed is estimated at 310,000 ozs. a year of which the two biggest crops probably absorb about 150,000 ozs. Assuming that we use up only 120,000 ozs. of univoltine seed for these two crops we could raise a million lbs. of silk with little difficulty. At present we are hardly able to manufacture half the quantity in 12 months.

The Seed.

26. In Kashmir about one half of the seed is imported, chiefly from France, at a cost of about Rs. 2-8 per oz. and the other half produced locally. Mysore, with its well established grainages, should be able to manage on similar, if not more favourable lines, so that the seed to be imported may be kept at a minimum. For one crop there is no difficulty about importing seed from France or Italy, either pure or cross. For the other crop cocoons from the most suitable areas will be set apart for seed. In the latter case the cost of the seed will only amount to the price of the cocoons as the testing operations will entail no more expenditure than at present.

The Rearing Season.

27. In Kashmir and the Punjab, French seed is imported in October-November and kept in hibernation until March, when it is hatched. Our climatic conditions seem to make it possible for the rearing being carried on almost throughout the period from June to November which embraces the two crops referred to above.

Let us make a Start.

28. If, without absolutely committing ourselves to the use of univoltine seed, we agree to give it a trial we could immediately make a beginning with, say, 5,000 ozs. of French seed, sufficient for 40,000 lbs. of silk or with such smaller quantity of seed as it may be possible to procure. The cost incurred on the purchase and storage (pending issue) of 5,000 ozs. will not exceed Rs. 15,000 which will be equivalent to about twice the cost of our hybrid seed. The whole of it could be recovered from rearers; but it would be wise to charge them not more than the present price and to ask Government to bear the balance of the cost price, so far as the first trial is concerned. The seed would only be issued to selected rearers and the rearing carried out under the close supervision of the Department. It should be stipulated that the price of cocoons will be fixed by Government who will also buy up such quantities as may be required for seed. If the results are successful the scheme may be launched on a more extensive scale.

Measure of Protection.

In determining the measure of protection to charka silk the last Tariff Board came to the conclusion that 50 per cent. of the output was of the first quality. If so, this can only refer to Bengal silk as in Mysore the proportion is much smaller, perhaps not more than 20 to 25 per cent. Nevertheless the fair selling price was arrived at on the basis of the Mysore cost of production Rs. 5-12-4 though the Bengal cost was given on page 154 as Rs. 5-6-6.

2. Over and above this a sum of 3 annas was added as re-reeling charges. The charka reeler does not and cannot re-reel his silk. Such defects as may admit of being cured are remedied in the process of unwinding by hand, which however is part of weaving operations and is carried out by the

weaver. This item of cost should therefore be excluded. If it is desired that an improved quality of charka silk should be placed on the market and re-reeling introduced with that object, the cost of unwinding the original hank, cleaning the thread and re-winding it into a hank would amount to at least 8 annas a lb.

3. Again it has been assumed that first quality charka silk consume 2 lbs. more of cocoons than the second and 3 lbs. more than the third quality. I do not think that such is the general experience. If third quality silk can be produced with 12 lbs. the first quality would at the most need 2 lbs. more. The matter calls for investigation from reliable reelers.

4. On the other hand the cost of production of filature silk has been arrived at under *optimum* conditions. The rendita is 18 to 1, which can only be achieved from cocoons five days old; the working costs are based on minimum outlay and maximum production; similarly the output per basin is at a maximum not always attainable. If any one of these anticipations is not realised the result would be seriously affected.

5. Indeed one such development has already occurred. When the last Board held its enquiry the denier most in demand was 28/30 and the Board determined the cost of production on the basis of an output of 1½ lbs. per basin. To-day however the weaver has got accustomed to a finer size, 20/24 denier, the chief consideration being the length of the thread secured for the warp and this denier has become the standard. The output per busin of this denier cannot exceed 1½ lbs. Taking this factor into consideration, and allowing for wastage at 5 per cent. (in reeling, examining, skeining, etc.), which was overlooked in the Board's calculation, the cost of production as found by the Board, has to be raised by about 4½ annas per lb.

6. Thus the measure of protection recommended for charka silk was unduly liberal while filature silk was given much less than its due share. If the Board should proceed on the same lines on the present occasion filature silk would be placed at a serious disadvantage. The charka reeler is already more favourably placed in the matter of cocoon supply; being in the same village as the rearer and having much in common with him, he gets the pick of the cocoons and effects a saving in transport charges. If he receives the same measure of protection as the filature his position will be greatly strengthened and competition for cocoons will be all the keener, thus defeating the purpose of protection by increasing the final price of silk, instead of diminishing it.

7. The last Board has stated in positive terms that the future of the Indian industry depends on the multiplication of filatures. If so, it is obvious that nothing should be done to discourage filatures and the fact that the charka is ultimately doomed to extinction should not be lost sight of.

39. Silk Merchants, Kollegal.

Welcome address presented to the President and Members of the Government of India, Tariff Board, on the 7th August, 1938.

We, the Silk merchants of Kollegal heartily welcome you to our midst on the occasion of your visit to Kollegal to enquire into the condition and practical working of the silk industry. We take this opportunity of submitting our representations to you on this ancient cottage industry which has an important bearing in the Rural Economy and Uplift of the Agriculturists of this taluk. Out of a total area of about one lakh of acres, mulberry had been planted in 15,387 acres during 1925. But now, the acreage has come down to about 7,000 acres on account of the severe trade depression in prices of cocoons, silk and silk waste caused by foreign competition. Kollegal alone which was once producing 250,000 lbs of raw silk valued at about 30 lakhs of rupees is now producing only about 120,000

pounds of raw silk valued at about 5½ lakhs of rupees. This clearly proves that the Agriculturists of Kollegal taluk have become economically poorer to a very great extent. This has also caused a lot of unemployment and misery to the Rural population.

There are about 15 silk merchants in Kollegal taluk. The continuance of the silk industry of Kollegal under severe foreign competition, has been largely due to the organisation, finance and interest evinced by the silk merchants. After the last Tariff Board Enquiry, and the enhanced Tariff granted by Government, silk reelers have improved their qualities of silk. This has enabled us to find a sale for the local silk throughout our Province as well as Bombay province and Hyderabad State. But again owing to the severe competition from Japan and China, the silk merchants find it extremely difficult to market local silk.

We, therefore, submit that the importation of foreign silks is bound to continue with gradual fall in prices for various causes and that real effective protection to the silk industry should be granted in such a manner that there should be a difference of at least Rs. 1-8 a lb. between the price of local silk and that of the imported silk. If the Sericultural Industry of Kollegal becomes extinct, the prices of foreign silks will rise considerably and this will very severely affect the silk Hand-loom Industry.

In the absence of irrigation facilities agriculturists entirely depend upon Mulberry which is the only money giving crop. We strongly request that a bounty of at least Rs. 5 should be given on every acre of mulberry, out of the enhanced revenue derived by the imposition of duty on imported silks.

The Board may also help the industry in such a way that the mulberry acreage does not fall below 25,000 acres any year.

Lastly, the charka reeler may be protected and granted such a bounty as to continue his business even under this severe competition.

We, therefore, pray that it is very necessary to protect this industry so that both these cottage industries (Sericulture and Hand-loom) might survive.

If your labours could bring about this happy result, all those who are connected with the silk industry of Kollegal and Hand-loom industry of the Province would ever be grateful to you as our happiness and prosperity depend entirely on this industry.

40. S. BAGCHI, Esq., M.S.R.A., (Silk Technologist) Berhampur, Bengal.

(1) *Letter dated the 15th August, 1938, from S. Bagchi, Esq., M.S.R.A., (Silk Technologist), Proprietor of Messrs. S. Bagchi & Co., Silk Manufacturers, Gold Medalists—Paris and London, Berhampur, Bengal.*

Though uncalled for, yet I deem it desirable to place before the Committee the position of the Sericulture and Silk Industry, so far investigated by me since my return from abroad in April last year after four years study of Sericulture in Japan, China, Italy and France. Moreover, I am connected with the Silk Industry for decades as my father started his enterprises about fifty years back.

I was sent for the special study of Sericulture by the University of Calcutta, and I hope that my paper will help you to understand the present condition of the Industry to a certain extent.

When the Committee comes to Calcutta, I should be glad to appear before the same. I am also in the Sub-Committee of the Bengal National Chamber of Commerce for preparing the answers to your questionnaires and the same have already been sent to you by the Chamber.

Indian Sericulture by Mr. S. Bagchi, M.S.R.A., (Silk Technologist).

In defining silk it is to be mentioned in the very beginning that there are two different species of silk worms from which the raw silk is obtained, and they are domesticated and wild.

The domesticated silk worms are of *Bombyx mori* species, which have to be reared up in nurseries under watch and regular feeding, and the wild silk worms are those that can not be domesticated, which feed themselves on the tree like Oak, Jujube, Ailanthus, and *Terminalia tomentosa* or Shore Robusta, etc., and build the cocoons on the tree outside. The first group of domesticated races belong to the *Bombycidae* and the latter *Saturniidae*. The wild silk worms are mostly *Antheria pernyi* and *Mylitta* (Tusah or Tassar silk worms) which are found in India and Asia. The major portion of the commercial silk is obtained from *Bombyx mori*. It is desirable to mention here about the Indian races of silk worms from which the raw silk is obtained, and they are as follows:—

Bombyx fortunatus and *Bombyx creesi*.

The *Bombyx fortunatus* or Choto pollo, and the *Bombyx creesi* (Nistari or Madras of Bengal) are domesticated silk worms found in India which are of multivoltine species and produce yellow cocoons of small size, and the spring and autumn crops are comparatively better. The raw silk is much below par, as the industry remains in a most neglected state without much improvement towards its credit.

Bombyx textor, Hutton.

This is *Bombyx mori* (Bara pollo of Bengal) supposed to be originally introduced from China. It is an annual species, hatched early in spring usually in January or February, produce generally pure white cocoons for inferior in size to *Bombyx mori* of Europe or Far East. The cocoons have an inclination to become pointed at each end and the silk filament not so closely spun. The exterior portion of cocoon is rather flossy and loose; whereas the *Bombyx mori* is closely woven, compact, rather hard and smooth in feel, oblate in shape and large. This worm has strong resemblance to *Bombyx mori*, but smaller in length and thickness, which can no doubt be immensely improved by culture. Bara pollo which is reared in Bengal contains a large number of dark variety and the worms attain a length of two to two and a half inches and yield about five hundred yards of filament, if attains proper development.

Bombyx creesi, Hutton.

This is Nistari of Madras of the Bengal Sericulturists and is a much smaller species of multivoltine type, yielding five or six crop a year. The cocoon is small and of yellow bright colour and the texture of the cocoon is loose and flossy. It is supposed to thrive well from June to October. The length of worms becomes one and a half to two inches having a moist appearance, yields only about two hundred and fifty yards filament length and denierage about 1.3 per cocoon.

Bombyx fortunatus, Hutton.

This is Aracan worms of the Indian sericulturists and supposed to be a native of Burmah. The cocoons have got a flossy appearance and is of golden yellow colour. It yields a filament of length of about four hundred yards and the cocoons are of spindle shape.

Besides the *Bombyx mori*, there are *Antheria paphia* and *mylitta*, (Tusah Silk), *Antheria ussama* or munga, and *Attacus ricini* (Eri Silk Worms) and they are found in different parts in India.

Antheria paphia and *mylitta* (Tusah silk).

They are found mostly in tract of the country bounded by the Ganges river, on the north, the Godavari on the south, the Orissa coast on the south-east and also the Kaimur mountain in the north-west. The production

of Tusah silk in the province of Behar and Orissa, Central Provinces and neighbouring districts is an important industry.

Antheria assama (Muga silk).

This is found in Assam and Burmah, and the worms are more domesticated than the Tusah worms. They are generally fed on a kind of laurels, *Machilus adoratissima* (Sum) or *Tetranthera monopetala* (Selau). Two crops are raised a year and the silk is easily reelable and of golden yellow colour.

Attacus ricini (Eri silk).

This is found in Bengal and Assam and the worms live mainly on the leaves of Castor oil plant and are multivoltine. The worms are reared indoors, the cocoons are very soft and the filament is so delicate that they can not be reeled and as such have to be spun. The moths are allowed to come out of the cocoons, when the cocoons are collected.

The silk industry can be said to be in a very much neglected state, and the export or internal silk trade depend much on improvement, organisation and development of Sericulture in India. In spite of the natural advantages and low labour cost, owing to the want of proper organisation, improvement in various phases of the sericulture, and for want of technical men of better type with thorough knowledge of the science, India has never been able to meet even the home demands for decades. A large quantity of raw silk and artificial silk have therefore always been imported to feed the Indian Weaving Industry. Then also there is demand of manufactured silk to a large extent in India market and the following figures will disclose that there is much necessity of improving the Indian Silk Industry.

Imports of Raw silk and cocoons into India.

1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
11,726,281	7,174,284	5,746,302	5,773,129	6,441,547

Manufactured silk.

31,610,400	28,885,862	27,962,951	21,991,541	17,745,254
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Other Yarn and Textile Fabrics.

50,505,201	35,182,364	53,851,813	47,502,931	5,730,333
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(the average figures taken from the Indian Sea-borne trade). Due to defective organisation of the department concerned and no proper statistics being maintained no definite figures can be obtained of demand and supply of raw silk, the quantity of cocoons and raw silk produced, and the approximate number of people working in the silk industry, which is a definite discredit on the department of Sericulture and the Department of Commercial Statistics. Though this very fact has been mentioned in the "Report of the Sericulture Tariff Committee" in 1933, it is a pity that no definite move has been taken by the authorities responsible to gather the actual silk statistics in India or Bengal.

About 1916 even India used to produce 31,012,000 lbs. of cocoons and 2,276,800 lbs. of raw silk, and out of this Bengal produced 5,000,000 lbs. of raw silk.

India requires about forty five million pounds of raw silk but unfortunately she is not at present in a position even to produce half of it, and the condition of the Bengal Silk Industry has gone from bad to worse to the credit of the Bengal Sericulture Department.

Though the silk producing areas in India are Bengal, Mysore, Madras, Kashmir, Burmah, and Assam, and also a little quantity is produced in Punjab and other provinces, I am definitely of opinion that Bihar can equally be benefitted by the silk industry and the climate of Bihar is quite suitable for the production of mulberry silk. It is a pity that the prospects of increasing the silk production in a country like India possessing high degree of natural advantages have been utterly neglected and overlooked, and which if properly developed and organised should become one of the leading silk producing countries of the world.

In recent time Japan because of taking active measures to advance the Sericulture Industry could meet with remarkable success. Some twenty five years back Japan used to produce not much superior quality of cocoons and used to supply only about 18 per cent. of the world demand, but at present due to Government co-operation and direct activities in the shape of research, technical education in sericulture, subsidies granted to the sericulturists and other bodies, it has been possible for her to supply no less than 76 per cent. of the world demand at present.

It will be found that the Government of Mysore has effected much improvements in sericulture and silk industry, and this is due to her systematically sending departmental people or scholars to Japan for technical study of science, while on the other hand the Bengal silk industry has dwindled down to the stage of extinction and this decline may be attributed to (a) no definite efforts being done to organise and improve the condition of sericulture and reeling industry, (b) want of proper technical men in the Sericulture Department, (c) want of sericulture education, (d) no definite scheme being worked for standardising cocoons and raw silk by the sericulture department, (e) degeneration and disease of silk worms.

As the world trade is facing serious competition, it is very natural that the silk industry will face disadvantages like other industries, and if the silk industry has to survive she must prove to be worthy of it and for it definite activities are to be directed to improve the conditions of the industry in the right direction paying proper importance to the points mentioned above.

To safeguard the interest of industries tariff is a necessity but what can the more imposition of tariff do towards the permanent benefit of the industry, if definite efforts are not made to improve the conditions of the industry, and if Government lacks in giving proper financial support in the shape of grant and subsidies which are essentially needed for such improvements, and if proper men are not put at the helm. The growth and development of the silk industry chiefly depend on successful sericulture, which means improvement in the quality of silk worm eggs, methods of breeding, preservation of egg-cards, standardisation of silk worm species, improvement of mulberries, stifling and storing of cocoon and filature, which help to stabilise the conditions of the silk industry.

In 1860 Bengal had acre of land under mulberry plantation which fell down to 131,000 acre in 1901, 26,000 in 1929, 17,550 acres in 1933, and 9,500 acres in 1936-37. This very fact proves that the silk cocoon raisers gradually had to give up silk raising as it was not worth taking, the main cause being degeneration of mulberries and silk worm species, which is chiefly responsible for the want of proper scientific improvements.

The average yield of mulberry leaves per acre of land in Japan is 11,300 kg., the price of which is about Rs. 260, and the quantity of cocoons raised from this quantity is about 300 kg., while in Bengal per acre the yield is about 7,200 kg., the price is about Rs. 180 and the cocoons raised is about 180 kg. In European, Chinese and Japanese cocoons the average denier obtained from a cocoon is about 2.8 but the Bengal cocoon is so much degenerated and is of so much inferior quality that its denier is about 1.3. Then also from the former the average filament length obtained is about

eight to nine hundred yards per cocoon, while our Bengal cocoons give a length of barely 250 yards only. Unless the quality of cocoons is improved and standardised, reeling shall ever remain a definite problem in Bengal silk and filature industry will never be a success from a commercial position, which will naturally increase the cost of production and will, therefore, be unable to compete with any country, which runs the industry on a scientific basis. From this very fact the position of the Bengal Silk Industry will be found to be nothing but highly disappointing which prove the hopelessness of the sericulture department, which is responsible for the improvement of the silk industry. The policy of government is found to be such which leads one to think that there is no real intention to improve the conditions of the silk industry. In the past and present people with various qualifications, which have very little connection with the sericulture and silk industry have been put in the charge of the department, and this can be well said to be the chief cause of the continuous decay of the Bengal silk and sericulture industry.

The silk industry can be mainly divided into two sections (a) production of raw silk, (b) the manufacture of silk tissues and other materials under (a) comes the plantation of mulberries for feeding silk worms, successful raising of silk cocoons, and uniform reeling of raw silk. So long better grade silk in sufficient quantity is not produced weaving industry is bound to suffer. Each of the branch is interallied and unless the industry is well organised and systematically improved from the very foundation, mere starting of one or two departments for proving the existence of the department of Sericulture or justifying the presence of some one supposed to be responsible for it will but little help the revival of the dying silk industry of Bengal. Most unfortunately the sericulture department wants very much the help of scientifically trained people and if a survey is made it will be found that it is not being run and never have been run in a way as it ought to have been and the reasons have already been given above. The result has therefore always been a downward trend.

There is also a necessity of forming an Association and various guilds to organise the different branch of the industry and look after respective interests, and these bodies should receive full co-operation of the department of Industries and the Sericulture Department. They should also receive grant in aid of industries or subsidies.

In conclusion, I desire to mention that in India there is great necessity to start a Sericulture Institute for training and research in different phases of the sericulture industry up to reeling and the function of the institute should be as follows, and the Institute should be started preferably in a place like Bengal:—

- (a) training of men to look after mulberry plantations, propagation, manuring, and rearing, disease of mulberry plants and the remedy, silk worm disease and the remedy,
- (b) training in stifling, storing of cocoons, reeling and examination of raw silk,
- (c) supply of standardised hybrid disease-free silk worm eggs to Government nurseries for producing first generation eggs for distribution among rearers,
- (d) experimental study of new races and production of suitable hybridised races,
- (e) demonstration of methods of mulberry cultivation, manuring and rearing methods,
- (f) lectures by experts in mulberry centres about preventive and curative methods of mulberry plant diseases,
- (g) demonstration of the scientific rearing methods and prevention of silk worm diseases.

Demonstration work should also be carried out by the sericulture nurseries, which should carefully study the local conditions and add improvements to the industry.

The industry has come to such a deplorable stage that unless a thorough radical improvement is effected in the quality of Indian silk, the imposition of tariff of superficial activities by the sericulture department will not improve the situation and this fact has been amply proved during the last four years under which tariff came into force. For this the use of carefully selected seeds, cultivation of approved varieties of mulberry, improved rearing methods, supply of better grade of silk worm eggs to the rearers, and good reeling by filature or improved methods are essentially needed and unless efforts are done to raise the condition from the present deplorable position it is natural that the industry will suffer the disadvantages and gradually near extinction.

(2) *Letter dated the 18th October, 1938, from Mr. S. Bagchi, M.S.R.A. (Silk Technologist).*

As requested by you on the 13th instant, I beg to say that I have gone through the questionnaires so kindly given to me by you for giving my opinion and answers. I now beg to inform you that I have previously perused them as a member of the Sub-Committee of the Bengal National Chamber of Commerce, Calcutta, and the answers which you received were all drafted by me, and as such I should think that they would serve the purpose. Should you, however, like to put me any further questions on the subject, I shall be very glad to answer them.

I am herewith sending in brief my opinion about the present position of the Indian sericulture (specially Bengal) with a paper specially prepared for you to enlighten you on the condition of the Japanese sericulture industry which I hope will help you to compare the position of our industry with Japan.

I am also enclosing some of my articles published in the paper for your kind perusal, which was written to enlighten the public about the present position of the industry and how they can be remedied.

In conclusion, I beg to draw your kind attention to the fact that I have written a book entitled "Sericulture and Silk Technology" in which all aspects of the sericulture industry have been elaborately dealt for the benefit of the Indian sericulture industry. Up to the present time there is no book on this subject specially written in English and this book when published will conduce to the proper development of the industry. As I am not personally in a position to publish the book, I desire to get it published through the Government of India for the benefit of the industry, and I shall be obliged if you could kindly help me in the matter. I also desire to devote my knowledge and energies for the industry.

The successful growth of sericulture industry chiefly depends upon the improvements in the quality of silk worm eggs, methods of breeding, preservation of eggs, standardisation of the work species, improvement of mulberries, uniform reeling and sound organisation in all stages which help to stabilise the condition of the industry.

The sericulture industry can be very successfully developed in Bengal, Bihar, Assam, Madras, Mysore and Kashmir as the soil and climate of these particular places are quite suitable for the growth of the industry and the cost of labour in India is also cheap that will help to favourably compete with other countries, but unfortunately this industry has been left quite neglected and remained in antiquated processes in all stages to meet only a gradual and inevitable death for which the Government is responsible.

If Japan being a small place having only the area of Bengal can command the world market of silk within twenty five years and can raise the supply to the world market from 18 per cent. to 76 per cent., Indian sericulture, if organised on a sound basis and proper initiative be taken by the Government Sericulture Industry can play a great economic role in the life history of India.

Why Indian sericulture ruined.

1. The sericulture industry has been ruined due to ignorance in people of the methods how to carry on the industry in all phases on a sound and commercial basis. They are carrying on the industry on sericulture, stifling, reeling and weaving in the most primitive methods without the benefit of adding anything new towards improvement, and the industry that has the misfortune of being placed on such a miserable position will naturally near gradual extinction and will also be unable to face foreign competition.

2. The sericulture industry faces the above difficulties for want of properly qualified people in sericulture, proper initiative to improve or remove the disqualification, organisation and adequate financial state help essentially required for the development of this industry.

3. The silk worms and mulberries have been much degenerated for the aforesaid reasons. No arrangement for proper sericulture research exists in this country which is needed for future development of the industry. All the silk producing countries carry on sericulture on a scientific basis with the facilities of research are in an advantageous position over India and they get greater yield with minimum labour which help a good deal in competition.

4. No institution for sericulture education exists in India for which people have very little opportunity to learn the scientific methods for properly and economically developing the industry.

5. Owing to degeneration the yield of cocoons, outturn of mulberries, the quantity of cocoon raised from the ill nourished mulberries are all highly disadvantageous from commercial standpoint and when compared with countries that have properly developed the industry on a scientific and up-to-date basis will be found in a state of inability to stand against competition.

निराकरण

How to remedy.

There is little arrangement for the supply of better species of silk worm eggs which are free from diseases, and hybridised mulberries, and proper arrangement should be made for adequate supply from Government nurseries at less cost. The seed cocoons supplied by nurseries are not always free from diseases.

2. So long real and earnest efforts are not made by the Government to improve and regenerate the sericulture and reeling industry no amount of protection will be of material and permanent help to the industry. Inadequate or mere imposition of tariff can never revive this industry unless the defects are removed.

3. Sericulture education and research are essentially needed for the future development of this industry on a scientific basis. The income from duties on silk is more than three million rupees out of which a small sum of one lac of rupees have been spent for the improvement of sericulture which required the attention of the tariff board and the Government of India. A considerable amount from the duties of the Central Government should be spent in addition to a substantial contribution by the Provincial Government for this industry provided there is the real will to improve the industry. If there is no arrangement for sericulture education, who and how this industry will be properly guided? The following comparative

statement will help to realise why, India cannot stand in competition with Japanese raw silk :—

	India.	Japan.
Mulberry leaves obtained per acre .	180 mds.	240 mds.
Cost of tillage and manuring . .	Rs. 90	Rs. 100
Cocoons raised from one acre mulberry .	4½ mds.	6 mds.
Quantity of raw silk obtained from above cocoon quantity.	11½ seers	36 seers.
Yield of one cocoon	1·3—1·5 denier	3 denier.
Filament length in a cocoon . . .	About 250 yds.	900 yds.
Percentage of silk in cocoon . . .	6 %	15 %
Quantity of cocoons required to produce 1 bale (weighing 133 lbs. of raw silk).	2,150 lbs. @ 4 annas per lb. = Rs. 537 8 0	880 lbs. @ 5 a. 9. p. per lb. = Rs. 316 4 0
Cost of reeling of 133 lbs. by filature . .	..	Rs. 138 0 0
Cost of reeling by country process . . .	.. 74 4 0	--
Total cost of production per bale of 133 lbs.	Rs. 611 12 0	Rs. 454 0 0

Sericultural Industry in Japan.

The silk industry of Japan is one of the most important industries which supply at present no less than 80 per cent. of the world demand of raw silk. Japan did not enjoy this position of silk trade from time immemorial, but she has achieved this position by her steady improvement and development of various aspects of the industry.

The silk may be chiefly divided into two stages, production of cocoons and reeling of raw silk from the cocoons. The former devotes to the growing of mulberries, egg production and raising of cocoons, while the latter attend to stifling and reeling. Between these two main stages many transactions are involved.

The silk industry in Japan embraces agriculture, manufacturing, and commerce which is subdivided into the following branches :—

- (a) growing of mulberries,
- (b) production of eggs,
- (c) production or raising of cocoons,
- (d) sale of cocoons,
- (e) reeling,
- (f) stifling,
- (g) transaction of raw silk, and
- (h) export.

Sericulture industry is therefore a chain of industries connected with the production and distribution and ranging from the production of cocoons to supply of raw silk which ultimately is used for the manufacture of silk tissues, etc. As sericulture is a subsidiary branch if agriculture, it will not be out of place to deal here about the average income of the Japanese farmers and their position.

The average gross income of the farmer from agriculture, as furnished by the Ministry of Agriculture of Japan in 1933, was 726·08 yen. Of this

rice was responsible for 52 per cent., other crop 16 per cent., sericulture 15 per cent. and the income from other sources 17 per cent. Gross expenditure was 421. For small tenant farmer it was 53 per cent. and for farmer cultivating own land it was 36 per cent. The income represents the cost of cultivated products, sericulture, live stock, poultry, agricultural manufactured products. Expenditures comprised of rent 31·7 per cent., manure 22 per cent., fodder 8·5 per cent., labour 3·7 per cent., interest on loan 3·4 per cent., taxes and other contributions 9·8 per cent. Out of an income of 726·08 yen, average expenditure was as stated before. It is to be mentioned here that sometimes the farmers have to pay higher interests on loan and high rent on tenanted lands as well. To better up the conditions of farmers, which is passing an economic depression Government have organised Economic Recovery Committees in municipal areas and rural districts who are entrusted with the duties of working out plans and effect improvements by equitable division and utilisation of land, capital and labour improvement, control of production and distribution, lowering of cost of production, reform of existing organisation, training leaders amongst farmers, stabilising the price of manure and granting of loans.

The main character of the sericulture industry is that though the reeling is done by the help of motive power, the industry is dependable to manual labour from the very raising of cocoons to silk reeling.

The average annual cocoon output during the five years from 1929-33 was worth about 406 million yen which is about 11 per cent. of the value of total primary production. During this period the average raw silk production was 573 million yen or eight per cent. of the total value of the entire industrial production. This very fact clarifies that the silk industry occupies a very important position in Japan, which is of special importance to agriculture and the rise and fall have a direct effect on the agriculture economy. Silk industry after proper development has become an essential element in the balance of foreign trade in Japan, which is applicable to India as well if properly developed.

The predominance of Japan in the world silk trade is clear from the fact that in 1934 Japan produced 82·3 per cent. of the world output, China 11 per cent. (though her share was comparatively larger beforehand) Italy 4·9 per cent. and 1·8 per cent. the rest of the world in which India is also included. The following table will further clear the position of the output of raw silk of different countries:—

Percentage of world production of raw silk.

Year.	Japan British India and Indo- China.		China.	Near East & Cent. Asia.	Spain.	Italy.	France.
1922 . . .	51·9	0·2	37·8	1·5	0·2	7·9	0·4
1925 . . .	55·1	0·2	34·4	2·0	0·2	7·1	0·5
1929 . . .	61·5	0·1	29·3	1·9	0·1	6·8	0·3
1932 . . .	75·7	..	16·7	1·2	0·1	6·2	0·1
1933 . . .	76·8	..	15·6	1·5	0·1	6·0	0·1
1934 . . .	82·3	..	11·0	1·6	0·1	4·9	0·1
1935 . . .	78·8	..	10·9	..	0·08	4·2	0·13
1936 . . .	74·7	..	9·9	..	0·11	8·03	0·14

In 1935 Japan exported 880 million yen worth of raw silk but owing to the World wide depression the price level having been declined to a great extent the average of export for five years ending 1935, became 362 million yen. Japan has to import most of the raw materials for manufacturing her exportable goods but so far silk is concerned it is not being offset by raw material imports and as such can be applied to the reduction of the generally unfavourable trade balance and the following table will make the position further clear—

Raw silk production to total export percentage.

Year.	Export (in 1,000 yen.)	Ratio to total export percentage.
1870-74 average	6,111	33.2
1900-04 „	71,871	27.1
1910-14 „	152,149	28.0
1925-29 „	774,713	37.0
1925	879,657	38.2
1929	784,159	36.5
1930	419,107	28.5
1931	356,932	31.1
1932	382,950	27.2
1933	301,192	21.0
1934	287,084	13.2
1935	389,009	15.7
1936	393,463	...

In recent years the depression considerably brought down the prices of raw silk which affected the cocoon and reeling industry but the depression on the other hand benefited the industry by a higher level of efficiency by bringing about improvements in different phases of the industry. The Government althoress is responsible for the greater output of cocoons per unit of hatched eggs and yield of mulberries. Then also the result of improvement in the home made reeling machines (the cost of which is from 250-300 Yen per cauldron), the increased efficiency per cauldron which resulted in the annual decrease in the cost of production and manufacturing of raw silk which facts augur well for the further development of the industry even at the time of depression.

Though some people are pessimistic about the future of raw silk owing to the recent development in rayon, it is noteworthy that the world consumption of raw silk has maintained a comparatively high level in spite of the depression. Then again the use of raw silk for fashionable dress materials, ladies socks, manufacturing of bandages, war materials and parachutes will always keep a living demand for raw silk. Moreover, a time might come when the rayon producers might be confronted with the shortage of pulp materials (chiefly wood).

To mitigate the effect of depression Government is obliged to exercise their official power at times, while voluntary measures are adopted by those that are engaged in the industry. In 1932 accumulated stocks were purchased by Government to the extent of 100,000 bales (each bale weighing about 133 lbs.) and the cost per bale ranging from 600-900 yen. Due to the adverse condition of the silk industry political parties are obliged to press the Government to treat it as an important political issue and the Government was compelled to take up a policy in securing better control of the industry in permanent measure. The policy aims a State control over the supply of silk worm eggs for standardization of cocoons and the quality of raw silk, and the establishment of a license system to secure consolidation in the silk reeling industry.

Sericulture is practised in most cases by small farmers as a side line to agriculture, and the quantity of cocoons produced was approximately 6,580,550,000 lbs. The cocoon production has steadily increased and the average for the last five years rose to 251 against an index of 40·7 preceding 1931 showing a tremendous increase of two and a half times during the last twenty years.

The output of cocoons both yellow and white from 1910-1935 will be found interesting, and the proportionate ratio of white has been raised to 3 against 1 yellow.—

Output of cocoons (in 1,000 kwamme) 1 Kwamme—8·2673 lbs.

Year.	Total output.	White.	Yellow.
1910-14 Average . . .	43,185	...	...
1925-29 " . . .	91,668	71,252	20,416
1925	84,800	69,615	15,185
1929	102,093	76,361	25,732
1930	106,648	76,729	29,734
1931	97,072	68,440	28,633
1932	89,550	66,073	23,478
1933	101,164	75,794	25,639
1934	87,140	64,616	22,523
1935	82,066	68,967	13,099

The combined total of mulberry leaves and labour cost represents approximately eighty per cent. of the total cost of production and change in these items always has a direct effect on the cost of production of cocoon. The cost of mulberry leaves is approximately fifty per cent. of the total cost as fertiliser is the main item of growing mulberries supplemented by labour and it requires no irrigation there:—

Cost of cocoon production and cocoon prices (in Yen per kwamme—1 kwamme—8·2673 lbs.).

Year.	Cost of production (a) ordinary.		Cost of production (b) best.	
	Spring cocoon.	Summer and Autumn cocoon.	Spring cocoon.	Summer and Autumn cocoon.
1923	9·99	10·53	11·40	9·11
1925	7·82	8·25	11·25	10·07
1927	7·48	7·13	7·18	4·77
1929	6·99	6·25	7·57	6·53
1931	3·78	3·45	3·08	2·96
1933	3·82	3·76	6·25	4·25
1934	3·56	3·74	2·52	2·38
1935	3·54	3·96	3·81	5·37
1936	4·20	3·00	5·15	4·35
1937	3·90	...	5·60	...

(a) Investigated by the Cocoon Union of Silk Trade Association (later the Federation of Cocoon Producers' Association) and (b) investigated by the Ministry of Agriculture.

In cocoon production the next important item is wages, which is about thirty per cent. of the total cost. The industry at present depends almost on family labour as cocoon raising is carried on by household units. According to the investigation of the Ministry of Agriculture and Forestry in 1934, sericulture units depending on family labour were more than eighty three per cent. of all sericultural households.

Disposal of cocoon.

In Japan cocoons are disposed up in various ways, they are sold raw or dried, consigned to co-operative mills for reeling, reeled on commission or dispose up otherwise. Cocoons are sold on individual or joint accounts under license or otherwise, or special agreement. In 1933, raw silk sold to the extent of 73.3 per cent. of the total output, 12.9 per cent. consigned to the co-operative mills for reeling, or reeled jointly by the producers 8.9 and 0.9 per cent. were sold dried, reeled on commission and disposed up otherwise. To secure equity in the disposal of cocoons Government endeavours to popularise sale of dried cocoons and adopted various measures to encourage the formation of associations to dry cocoons jointly and store them for future transaction, grants subsidies to the cocoon drying warehouses.

The reeling is done by Co-operative Societies, limited concerns or by individual concerns of which the farmers represent quite a large number. In 1933 there were 473 Co-operative reeling factories out of an aggregate of 3,245 and the number cauldrons in the Co-operative filatures were 50,167 out of a total of 322,762, the balance accounting for the commercial enterprises.

Filatures of Japan can be divided into three groups, machine reeling, hand reeling and dupion reeling. The first occupies the major portion of the industry and produce the bulk of raw silk for export, while the other two are chiefly used for domestic consumption of lower grade materials. The ratio of machine reeled silk stands well over ninety per cent. and the ratio of hand reeling silk has gradually fallen below three per cent. and Dupion silk account for about six per cent. About thirty per cent. of the net cost of raw silk is accounted for reeling and seventy per cent. is the cost of cocoons in filature. The reduction in the cost of raw silk production has been made possible for the introduction of twenty reels filature machine with automatic stop arrangement for every reel and is operated by one girl.

The average cost of raw silk in 1934 was 534 yen, in 1935 717 yen and in 1936 580 yen, respectively. Out of the entire export of raw silk, Japan exports 85 per cent. to United States of America, 12 per cent. to Europe and the rest to the Asiatic countries.

The number of operatives in the silk reeling industry in 1935 was 347,513, out of which 26,174 were male and 321,339 were female.

In reeling industry the Commercial Bank holds the foremost place among financial organs and next to that is the wholesale dealers. Besides Central Bank the Co-operative Societies and other organs supply finance to a certain extent.

Seventy per cent. of the total raw silk produce is exported and thirty consumed at home for the manufacture of various pure and mixed silk goods and this has been possible only after the introduction of the modern manufacturing processes and for the advancement in technique in both dyeing and weaving it has become possible for the silk manufacturing industry to produce superior quality of goods.

Export of Raw Silk.

—	1919	1925	1929	1932	1933	1934	1935
U. S. A. . .	96.2	96.5	96.6	93.7	90.5	83.7	84.4
Europe . .	3.5	3.3	2.4	5.1	8.2	11.7	11.5
Other countries .	0.2	0.2	1.0	1.2	1.3	4.6	4.1

Average cost of Raw silk production per bale of 135 lbs. by flature.

	Value.	Per cent.	Common Enter- prise.		Co-operative.	
			Value.	Per cent.	Value.	Per cent.
Salaries and bonus to staff .	9.60	5.5	9.37	5.4	12.8	6.7
Wages, allowance and bonus to operatives.	53.50	30.9	53.12	30.8	57.75	31.6
Fuel	15.45	8.9	15.08	8.7	19.59	10.7
Electric power and light .	3.8	1.8	3.02	1.8	3.65	2.0
Provisions	15.00	8.7	14.92	8.7	15.99	8.8
Insurance	1.52	0.9	1.49	0.9	1.97	1.1
Packing charges	1.74	1.0	1.79	1.0	1.48	0.48
Commission for sale of raw silk	6.54	3.8	6.56	3.8	8.49	4.6
Commission for agents for cocoon purchase.	4.69	2.7	4.86	2.8	1.28	0.7
Commission for drying co- coon.	4.78	2.8	5.09	3.0	1.29	0.7
Expenses for recruiting oper- atives.	0.25	0.1	0.24	0.1	0.35	0.2
Storage	1.26	0.7	1.24	0.7	1.44	0.8
Cartage	6.82	3.9	7.08	4.1	4.02	2.2
Office expenses	0.97	0.6	0.98	0.6	0.86	0.5
Travelling expenses	2.64	1.5	2.73	1.6	1.72	0.9
Taxes and rates	3.42	2.0	3.62	2.1	1.21	0.7
Interest	17.05	9.9	16.62	9.6	21.89	12.0
General expenses	2.23	1.3	2.20	1.3	2.61	1.4
Ground rent	0.66	0.4	0.64	0.4	0.86	0.5
Repairs	4.56	2.6	3.25	1.9	4.46	2.4
Miscellaneous	14.01	8.1	4.50	2.6	5.29	2.9
Benevolent institutions and amenities of workers.	3.34	1.9	13.08	8.1	14.28	7.8
Total .	173.11	100.0	172.36	100.0	182.64	100.0

From the following table it will be found to what extent the manufacturing industry had advanced and to what point the export mark reached.

Production and Export of Silk tissues (in million yen).

Year.	Silk tissues.	Mixture.	Rayon mixture.	Total.	Export.
1931 .	329	23	97	448	73.4
1933 .	313	21	122	456	59.2
1935 .	341	24	200	565	101.6
1936 .	301	30	308	637	217.1

State aid for Sericulture Improvement.—Government of Japan normally spends 13,538,657 Yen per year for the improvement of the Sericulture industry, and this expenditure when subdivided into different heads will be found as follows:—

	Yen.
A. Government Sericulture Bureau . . .	10,324,153
B. Sericulture experimental station . . .	1,385,485
C. Yokohama Silk Conditioning House . . .	1,077,064
Kobe Silk Conditioning House . . .	609,007
D. Raw Silk Intelligence Bureau . . .	135,348
E. Raw silk Export Registration office . . .	7,600

The above heads spends the amount on the following items:—

A. Sericulture Bureau—	
A. Sericulture Bureau . . .	41,723
Protection of disease of silk worm aid . . .	83,283
Sericulture improvement . . .	4,966,136
Agriculture aid . . .	476,281
Research for promotion of Raw silk export . . .	128,854
Society of Improvement for Sericulture . . .	200,000
Grant-in-aid of Sericulture and protection against diseases . . .	4,347,982
Sericulture promoting subsidies . . .	63,574
Protection from snow and frost injury . . .	16,320
Total . . .	10,324,153
B. Sericulture Experimental Station—	
For experiment and research . . .	472,086
For improvement of Sericulture . . .	123,420
Aid of Agriculture . . .	589,190
Summer and Autumnal Sericultural research . . .	26,452
and 177,337	
Total . . .	1,385,485
C. Yokohama Conditioning House—	
Raw silk Conditioning for export . . .	1,063,483
For aid of agriculture and side research . . .	13,575
Total . . .	1,077,058
Kobe Conditioning House—	
Raw silk conditioning for export . . .	602,582
For aid of agriculture and research . . .	8,425
Total . . .	609,007

	Yen.
D. Raw Silk Intelligence Bureau—	
For aid of Sericulture Improvement	122,412
Salaries for staff and sundries	12,938
Total	135,350
E. Raw Silk Export Registration Office—	
Yokohama	4,358
Kobe	3,262
Total	7,600

Besides these normal annual expenditure special grants and aid are given, when the industry is need of such aid. In addition to the above expenses a large amount is spent on Sericulture education. I desire to mention here that on average 480 lbs. of cocoons are raised from the supply of one acre mulberries and from this 72 lbs. of raw silk can be produced. The reeler girls in Japan get on average 70 yen per day, and the working hour in a filature factory is about ten hours. The average output per reeler girl in a filature factory is about 1,200 grams of raw silk per day, and when the bonus is included the average income of an operative becomes about 48 Yen per month for a filature factory having 50-200 cauldrons.

Sericulture Administration.

Sericulture administration in Japan is chiefly concerned with the protection, control, and encouragement of sericulture. All affairs regarding raw silk industry are within the jurisdiction of the Ministry of Agriculture and Forestry and is dealt with by the Bureau of Sericulture. The Bureau of Sericulture and raw silk industry conducts the enforcement of raw silk export, control of raw silk business, and its improvement, encouragement of dry cocoon business, organisation of raw silk industry, and the control of prefectural Silk Conditioning Houses. It also operates the law of control of re-productive silk worm eggs, prevention of silk worm diseases, investigation relative to the improvement in cocoon business, organisation of mulberry cultivation, silk worm rearing, warehousing of mulberry seedlings and other matters.

Facilities for Sericulture Education.

To impart knowledge and education for Sericulture industry, there are a number of universities, colleges and middle schools, fourteen special schools for sericulture, 214 combined schools for sericulture and agriculture, maintained by prefectural or central Government. There are three Imperial Sericultural Colleges, which also train up girl students in Filature work. There are no less than 42 research centres under the Central Research Station.

(3) *Letter dated the 24th October, 1938, from Mr. Bagchi, M.S.R.A., Silk Technologist, Calcutta.*

I beg to send herewith a comparative statement of prices and yield of Bengal and Japanese silk together with the cost of production, etc., which I hope will be helpful to the Tariff Board and in understanding the present position of the Sericulture Industry in India and Japan, and also to what extent there are possibilities of developments of this industry in India.

The Sericulture Industry has become unremunerative, because it has been greatly degenerated for want of proper scientific improvements and initiative, which is mainly responsible for not getting the maximum yield

and outturn. As the Board knows that there are very few properly qualified people in this line, who can at present ably and successfully conduct the industry on a scientific basis for want of necessary and up-to-date knowledge, and this fact is chiefly due to the non-existence of any Sericulture Institute in India and also for very few people having gone abroad for this particular study. It is also regrettable that the tendency of opposition against properly qualified people coming in the department of Sericulture is found and this will be disclosed from the policy hitherto been followed.

Lastly, I desire to point out to the Board that the Sericulture crop is greatly affected by the quality of mulberry leaves and species of silkworms, and the success of the sericulture industry chiefly depends on these two main factors.

A few days back, I have submitted the half portion of the type written copy of my book, entitled "Sericulture and Silk Technology" for your kind perusal, and I shall be greatly obliged, if you can very kindly help me in the matter of publication of the book through the Government of India or any other source for the benefit of the Indian Sericulture Industry.

I beg to inform you that I am leaving for Berhampore and expected to return to Calcutta about the middle of the next month, when I desire to meet you.

Yield of Cocoon and Loss by degumming.

	Denier.	Yds. filament.	Loss. Per cent.
Chinese	2.56	about 800	20—23
		Yds.	
European	2.64	900—1,000	20—22
Japanese hybridised	3.17	950—1,100	16—19
Indian Nistari or Chotopolu	1.5	250	28—33

Some condition of Sericulture in Japan.

Cost of cocoon Production in Japan in 1935, in Yen per 1 Kwamme.

1 Kwamme = 8.22 lbs. 100 Yen = Rs. 78.

	Yen.		Yen.
Egg Card	0.20	Instruments	0.15
Mulberry	1.60	Interest	0.05
Labour	1.30	Miscellaneous	0.21
Cocoonery	0.09		
		Total	3.60
			(for about 8½ lbs.).

	Yen.
Price of one kwamme best cotton	6.25
Price of cocoon on average	4.46
Income of Sericulturist from by-products	0.56

Quantity of silkworm eggs used in 1935 in Japan—151,131,371 gram, and of this 86 per cent. white, and 14 per cent. yellow cocoons were raised.

In Japan the mulberry refuses after feeding the silkworms are used for feeding sheeps, the branches for pulp for manufacturing artificial

silk, the bark of mulberry for staple fibre, chrysalids for producing oil and manure, and also for feeding fishes, the floss for spun silk, the inner layer of cocoon for manufacture of felt and other products, and all these by-products help to stabilise the Sericulture Industry to a great extent.

Comparative Statement.

	Bengal.	Japan.
Cost of tillage at manuring one acre land.	Rs. 90	Rs. 100.
Yield of mulberries per acre .	180 mds. or 14,700 lbs. .	240 maunds or 19,700 lbs.
Price obtained per maund of mulberry	As. 14 to Rs. 1 . .	As. 12 to 14.
Cocoons raised per acre of mulberry.	4½ maunds	6 maunds.
Price obtained per pound of cocoons.	As. 3-6 to As. 4 . .	As. 5-9 to 6-3.
Price of cocoons raised from one acre of mulberry.	Rs. 92-2	Rs. 171-10.
Cost of production per pound of cocoon.	As. 4-3	As. 5-6.
Number of cocoons per pound weight.	Nistari 10,240.	Rs. 3,840.
Percentage of loss in normal rearing condition.	30 per cent. . . .	5 per cent.
Quantity of raw silk obtained from one acre mulberry.	11½ seers	36 seers.
Denierage in cocoon	About 1-5	About 3.
Filament length in cocoon . .	About 250 Yds. . . .	About 1,000 Yds.
Percentage of Raw Silk in cocoon	5-5-6 per cent. . . .	15-16 per cent.
Quantity of cocoons required to produce one pound of raw silk.	About 16-6 lbs. . . .	About 8-6 lbs.
Quantity of cocoons required to produce one bale of raw silk (133 lbs).	2,150 lbs.	880 lbs.
Price of above quantity calculated on Government basis of at As. 4 per lb.	Rs. 537-8	At As. 6 per lb. —Rs. 330.
Price of above quantity calculated on actual current rate of at As. 5 per lb.	Rs. 671-14 . . . .	....
Cost of reeling by Filature . .	No filature	Rs. 138.

	Bengal.	Japan.
Cost of reeling by country system at As. 12 per lb.	Ra. 74-4 . . .	....
Total cost of production . . .	Ra. 611-12 . . . (by As. 4 basis).	Ra. 468.
Ditto . . .	Ra. 754-2 . . . (on As. 5 basis).	....
Cost of production per lb. of raw silk.	Ra. 4-9-6 . . . (on As. 4 basis).	Ra. 3-8-4 (filature silk)
Ditto.	Ra. 5-9-7 . . . (on As. 5 basis).	....
Sale price in Bengal . . .	Ra. 5-4 to 5-12 . . .	....
Export price of Japanese raw silk on average in 1935.	....	Ra. 4-4 per lb.

**41. Miss O. CLEGHORN and Miss M. L. CLEGHORN, F. L. S., 43,
Mollahat Road, Tallygunge, Calcutta.**

(1) *Replies to General Questionnaire by Maudie I. Cleghorn, F.L.S.*

5. The kinds of silkworms which are at present reared in Bengal are:—

Multivoltines—

Nistri.

Chotopolu.

White Chotopolu (Bankura District).

Nistid Hybrid Race from Burma.

White Japanese, recently obtained (September, 1938) from Mysore,
with beautiful white cocoons.

Univoltine—

Bengal Baropolu, or big annual silkworm with beautiful shining
white cocoons.

Nisino -Hybrid Race from Burma—partly univoltine during the cold
season.

Italian Yellow Cocoon Race, from Burma, produces beautiful large
cocoons when reared experimentally in Bengal during Novem-
ber/December.

16. (a) The undermentioned experiments have been done to improve
the yield and reduce the cost of mulberry cultivation in Bengal.

(1) Selection of large leaved and thin stemmed varieties.

(2) Plucking of leaf only as they do in China was found to be a more
economical method and increases the outturn by 12 maunds (or about
24 lbs.) of leaf without stem per bigha (about $\frac{1}{2}$ acre) per annum.

(3) Lines of mulberry were grown running due north and south in order
to obtain maximum amount of sunlight on the leaves and minimum on
the soil between the rows.

(4) Mulberry inlines wide apart, about 5 ft. or 6 ft. gave the best
results, comparatively.

(5) The indigenous mulberry variety (Alipore 13) known by Prof. Lefroy as the Cleghorn Mulberry gives 33 per cent. more leaf than the varieties usually cultivated in Bengal. The ratio of leaf to stem is 4:2 better than the Japanese mulberry in which the ratio of leaf to stem is 6:4.

(6) By a system of ridging and earthing the outturn of leaf from a low lying water-logged plot of the mulberry was increased 4,700 per cent. in one year.

(7) Ecological study of mulberry roofs and of self sown seedlings showed that the mechanical condition of the soil was of greater importance for encouraging quick growth than the chemical condition.

(8) Economical methods of cultivation gave an average yield of about 30 maunds (2,400 lbs.) of leaf without stem, per bigha ($\frac{1}{4}$ acre) with a negligible cost under purchase of manure per bigha, thus making a saving of about Rs. 35 per bigha or $\frac{1}{4}$ acre.

(9) With well-thought-out methods of cultivation and drainage, *plus* manure from 4 bullocks or cows, a non-diminishing yield of about 30 maunds (2,400 lbs.) of leaf, without stem, can be obtained per bigha ($\frac{1}{4}$ acre) with a negligible expenditure, from an area of 30 bighas (10 acres) of which $\frac{1}{3}$ rd (not more than about one-half) is under mulberry, with remainder under homestead, tanks and large trees. The balance in nature is thus kept up and a non-diminishing yield obtained.

(10) Comparative experiments showed that the ratio of stem to leaf may vary according to season, variety and pruning but the weight of the total plant structure produced above ground during the same period in neighbouring plots is the same in the varieties compared.

21. The yield of cocoons obtained in India from univoltine silkworms should be the same as that obtained in Europe (Italy) if reared at the proper time during the cold season.

The Writer has obtained exceedingly good crops during the cold season from univoltine crosses as much as over 4 grains and even 5 grain cocoons--and our average of 4 grain cocoons form a first cross between the Italian Race and the Bengal Univoltine Boropolu Race. The Italian-Japanese cross does exceedingly well in Bengal and can be reared in December-February without any death rate and with only a 3 per cent. death rate when reared in the silk districts on bush mulberry leaf.

Iafont, the French silk Expert, when referring to the climate of Bengal stated--"The month of November is extremely favourable for the rearing of cocoons in Bengal--even more favourable than the spring in Europe".

Old records also support the great importance of annual races for the cold season in Bengal as one of the earliest records dated 1679 mentions--"White silk bought at Serepore" which refers to the white cocoons of the annual Boropolu race of Bengal.

It has been put forward at times that annual races and hibernation of annual eggs have been failures in Bengal. This opinion appears to be mainly due to the fact that the experiments were with--

- (i) Second generations.
- (ii) Pure Italian in the plains of Bengal.
- (iii) Annual races out of season.

Pure French and Italian annuals are not hardly like the first generations of Italian-Japanese, Italian-Boropolu or Japanese white annuals all of which are very hardy.

Pure Univoltine First Cross Italian-Japanese eggs gave 99 per cent. hatching in early February after being 4 $\frac{1}{2}$ months at 40°--45° F. and one week at 50°--60° F. before being removed.

The extension of annual races for Bengal could form an important portion of the issue of disease-free seed and would automatically come under legislation in connection with the issue of healthy eggs only, as the issue

of univoltine eggs can be easily controlled—less eggs would be required for producing the same weight of cocoons and at the same time the cocoons would be of the best reeling quality from absolutely healthy eggs produced under Government supervision.

The production of first generation annual strains for Bengal will necessitate responsible work of a scientific nature and would be the legitimate work for the seed producing Government Nurseries which should be strengthened as no crop in India is so dependent on scientific microscopic selection as the silkworm cocoon crops.

(2) *Reply in connection with Question 59, by Miss O. Cleghorn, 43, Mollahat Road, Tollygunge, Calcutta, dated the 22nd October, 1938.*

The capital outlay for the rearing, spinning and weaving of eri silk is negligible and it is an ideal cottage industry and should be kept as an adjunct to agriculture. Rearing should not be on a large scale with paid labour, small lots of eri silkworms reared in each home stabilizes the industry and villages usually have clumps of castor plants growing wild and luxuriously near them. If worked on simple lines by family labour organisation it is paying and interesting home craft, and within the reach of the poorest villager; the outlay to start the eri silk industry is approximately as follows:—

	Rs. a.
Cost of half tola eri silkworms eggs	0 2
25 mats for rearing the silkworms on	0 12
Bamboo for making a machan or racks, for the mats for silkworms, or if it grows on rearers' land it is without cost	0 4
Three large baskets about As. 6 each more or less, for the worms to spin cocoons in, and for storing empty cocoons later. A gunny bag or two at As. 4 each, or strong empty cocoons	1 2
A spindle made of bamboo with a small round bit of wood attached, is all that is needed for spinning the empty cocoons, into silk yarn	0 8
	<hr/> 2 12

The above is the average initial outlay. After the rearing is over, 15 to 16 days from the hatching of the eggs to the spinning of the cocoons, the cocoons are all taken out from the spinning baskets and spread on the rearing trays on the machan. The beautiful moths cut out 18 days later and lay their eggs and the cycle repeats itself. The ideal time for rearing eri worms in Bengal is from July to February. Half a tola of eggs produces $7\frac{1}{2}$ kahons or 9,600 seed-cocoons (one kahon is 1,280 cocoons).

About 1,500 to 2,000 empty eri cocoons=1 lb. This varies according to season, and amount of leaf fed to the worms. The rearer from an outlay of 2 annas for eri silkworm eggs, has a harvest of over four seers of empty cocoons which when spun by the family whilst tending cattle, or when the household duties are over, as is done by the Mohammedan cultivators of the Bogra District makes a clear profit. It is a good second line of defence in a cultivators home—if the yarn spun is white eri the return would be over Rs. 28 at Rs. 7 per seer. A word here about the Bogra eri cocoons—they are of a dark red colour and inferior to the white eri cocoons. Beautiful coating shawls and furnishing material can be made from the red Bogra eri which can be dyed in deep colours (see Appendix I*) and this has a definite market (see letter* from Bengal Home Industries—Appendix I).

The white eri can be dyed in pale tints, suitable for dress lengths and is much liked by dyers as less dye is used. This applies also to pure white mulberry silk. This yarn is suitable for handlooms used for cotton and a wide variety of artistic textiles products can be made from it.

Properly organised and supervised the eri silk industry in Bengal and in fact all over India, where the castor plant grows wild or cultivated, could become a flourishing cottage industry as there is no silk imported into India that competes with it.

(3) *Letter No. 803, dated the 25th October, 1938, from the Superintendent of Bogra Sericultural Nursery, to Miss O. Cleghorn, 43, Mollakat Road, Tollygunge, Calcutta.*

With reference to your letter, dated the 24th October, 1938, I give below the information required by you—

	Per seer.
	Rs. a.
1. Present market rate of 1st quality eri yarn .	3 0
2. Present market rate of 2nd quality of the same	2 12
3. Price of empty eri cocoons (pierced-cocoons) .	1 0

42. NARAIN DAS BEHANI, Esq., Malda, Bengal.

(1) *Letter dated the 22nd July, 1938.*

I am enclosing herewith 5 copies of the answers to the general questionnaire.

SERICULTURAL ENQUIRY.

Reply to the General Questionnaire as far as it matters with Babu Narain Das Behani, Silk Merchant of Malda.

3.	Year.	Approximate quantity of raw silk produced in Malda.	Approximate value.
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It is not available in my concern as there are other merchants and dealers who deal with Malda silk.

14. The present wastage in silkworm rearing from diseases and other causes is about 50 per cent.

Price of raw silk

Year.	Tana.			Bharna.		Ghora.	
	Rs. a.			Rs. a.		Rs. a.	
18. 1933	9	8		7	0	4	8 per seer.
1934	10	0		7	8	4	12 „ „
1935	10	4		8	0	5	4 „ „
1936	11	8		8	12	5	8 „ „
1937	12	4		9	12	6	0 „ „
1938	10	8		8	0	5	0 „ „

20. The same insufficient marketing organisation continues.

27. Please refer to answer to the question 3 above.

No information regarding waste produced is available.

35. (2) With proper organisation and supervision, the reelers can produce good silk provided they are supplied with suitable reeling machines.

42. No improvements have been effected with regard to the defects and blemishes found in the silk reeled in country charkas. Government has however established a reeling school of late for training people in improved methods of reeling. Re-reeling is not practised in the district except in the Government school.

46. (i) The demand in India of raw silk produced in the district is great but in consideration of the high price compared with foreign silk, it cannot be pushed in the market.

46. (ii) For total production please refer to the reply given under question 3 above.

47. There was demand for small quantity of indigenous raw silk in other parts of India but from the current year there is no demand from other parts of India for finer silk. Coarse ghora silk is sometimes required by the merchants in the Punjab and Cox's Bazar.

48. At the present moment no silk is exported to other countries. The establishment of a Conditioning House may help to stimulate the trade.

49. Railway freights paid by the importors from the ports to the principal up-country markets is not known. A statement showing the railway freight paid by the merchants of Malda for sending raw silk to various consuming centres in India is annexed hereto.

50. The prices at which our products were sold in distant markets generally corresponds with the prices obtained in the home market if allowances is made for freight to destination.

51. The same position continues. Recently a Conditioning House is proposed to be started.

54. Imported silk as classified in the Indian Customs Tariff which compete with different kinds of Indian silk is shown below:—

Indian Silk—

Bengal Bharna—best quality—competes with Canton.

Bengal Thick (ghora) silk—competes with Italian thick silk.

56. Yes we consider that raw silk imported from Japan and China is placed on the Indian market at prices which do not cover the cost of production. It cannot be however proved by facts and figures.

57. Imported silk is not superior to Indian silk in colour or durability—but it is superior in winding and other qualities.

58. The competition of imported silk with Indian silk has been accentuated by the fall in exchange.

62. Yes, the prosperity of the raw silk industry depends upon the price of silk waste. The price of waste increases a little during the April crop but it goes down during the rest of the year. The present price is Rs. 18 per maund.

66. We find that major portion of waste silk is being exported to other countries.

69. (a) Protection should be such that no Japanese silk from 13/15 Denier to 28/30 Denier is sold in Indian market at a price less than Rs. 7-8 per lb. and no Chinese (Canton) filature silk is sold at a price of less than Rs. 6-8 per lb. and Italian ghora at a price less than Rs. 4 per lb.

(b) Both in the form of *ad valorem* and specific duty. In addition bounties should be given to the producers.

(c) For at least 10 years. The Department of Sericulture is trying to introduce improved races of hybrids and is also trying to improve reeling but no appreciable results can be expected before 5 years to come.

70. It will not affect the silk textile industry or the handloom industry in India adversely if duty is also imposed on imported silk fabrics of all description both in India and Burmah.

72. Protection granted in 1934 began to show slight result but unfortunately the result was not steady and price of indigenous silk fell down in 1938.

74. Exact facts and figures cannot be furnished but reduction in cost is expected if the Department of Sericulture succeeds in their works as per items mentioned in 69 (c) above.

Rate of silk yarn or raw silk per maund.

From Malda to	E. B. Ry.	E. I. Ry.	B. N. Ry.	Freight per maund	
				By goods.	By Parcel.
	Miles.	Miles.	Miles.	Rs. a. p.	Rs. a.
Berhampur Ganjam—Via Nalhati—Howrah . . .	183	30	375	2 9 10	4 2
Cuttack do. . . . .	..	..	254	2 1 6	3 0
Nagpur do.	183	30	703	3 15 8	5 12
Itwari do.	183	30	701	..	5 12
Bhandara Road do.	183	30	664	3 8 3	5 11
Umrer do.	183	30	733	3 8 3	5 13
Pauni Road do.	183	30	720	3 9 3	5 13
Canjiveram do.	183	30	S. I. 59	4 0 10	7 15
Waltair and Madras.		M. S. M. 485	B. N. R. 549	5 9 2	
Kumbakena do.	183	30	485	6 5 4	8 8
Byyampat do.	183	30	485	6 6 4	8 8
Pasupatikavel do.	183	30	485	..	8 8
Tanjore do.	183	30	485	6 7 1	11 15
Trichi Town Do. and Villiput—Trichanapoli Cord.	183	30	485	..	11 15

Trichinopoly (goods)	do.	183	30	485	..	..	6 6 6	..
Trichinopoly Fort	do.	183	30	485	252	549	..	11 15
Kolateer	do.	183	30	485	263	549	6 7 3	12 2
Padukotai	do.	183	30	485	285	549	6 8 8	12 2
Salem—Via Naihati, Howrah, Waltair, Madras	.	183	30	485	375	549	6 2 6	12 6
Arni Road—Via Naihati, and Guden, Kaspadi	.	183	30	485	173	549	5 11 11	11 11
Jahanganj Road—Via Kathar	.	58	..	..	..	B. N. W. R. 304	1 9 11 or 1 10 0	3 12
Benares Cantt.	do.	58	..	..	..	330	1 12 0 or 1 11 10	3 15
Julandar City	do.	58	340	N. W. R. 157	..	464	4 7 10 or 4 8 1	8 11
Amritsar	do.	58	340	205	..	464	4 11 4 or 4 11 5	9 12
Multan City	do.	58	340	416	..	464	5 9 10 or 5 9 11	10 14
Peshawar City	do.	58	340	522	..	464	6 1 3 or 6 1 4	11 8
Kashimbazar—Via Lalgola	.	..	..	..	..	..	0 7 2	1 7
Chittagong—Via Amnura, Goalundo, Chandpur	.	..	..	..	..	..	2 3 5	4 0
Vishnupur—Via Kir., Mugh., Aseansole	.	..	..	..	..	..	1 8 7	3 8
Rampurhat	do.	..	..	..	..	..	0 13 7	2 14
Gauhati—Via Kathar—Amingaon	.	..	A. B. R.	..	..	..	1 11 1	3 3
Manipur Road	do.	..	..	..	..	..	2 5 7	5 6

(2) *Statement submitted by Naraindas Behuni, Proprietor of the firm Lakshmandas Badridas of Malda, to the Tariff Board, regarding Sericulture industry on the 21st November, 1938.*

My firm Lakshmandas Badridas has been carrying business of indigenous raw silk for 60 years and never dealt in foreign silk fabric of raw silk. My firm was supplier of raw silk to Madras, Kumbakonam, Conjeeveram, Trichinopoly, Salem, Tanjore and many other centres of south India. It is well known that Bengal silk is superior in lustre, colour and durability but it cannot be pushed in the market owing to its high price in comparison with the foreign silk. This is the general complain everywhere and now from this year not a single skin of raw silk is despatched to South India or other places outside Bengal. In Bengal we supply raw silk in large quantities to Hanumandas Sarda, Proprietor of "Pure Silk Cloth Bhandar of Bishnupur" who is manufacturing silk cloth of all varieties on scientific basis and of up-to-date fashion and also never uses foreign raw silk or artificial silk in his looms. He has opened selling centres at Madras, Bombay, Dolbi and Nagpur to push the sale of indigenous silk fabric solely manufactured from the Bengal raw silk, but his complain is also the same.

The price of Bengal raw silk is so decreased that it does not cover the cost of production. But the price of foreign raw silk is still cheaper than that of our Bengal raw silk. Rearers of cocoons and reelers of raw silk began to discard the industry when it became losing concern.

Actual quantitative figure is not available but in rough estimate I can say that of the quantity which was produced 14 or 15 years ago, only one-fourth is produced at present. Slight improvement was seen after the protections in 1934 but the protection was not adequate and owing to more and more dumping of Japanese raw silk, no further improvement was noticed.

Figures of last six years of the purchase of raw silk by my firm is given below:—

Year.	Mds.	Price. Rs.
1933	490	1,66,383
1934	578	1,65,430
1935	540	1,68,417
1936	559	1,74,156
1937	539	2,04,272
1938	196	75,697

Sericulture Department (Department of Industries) of Bengal Government is trying hard for the improvement of the industry in all direction including the quality of cocoons and raw silk introducing new reeling and re-reeling machines but the protection of these five years of protection are nothing in consideration to such kind of big industry.

Now the industry has reached in such a stage that without adequate protection it cannot be revived and there is no chance of silk textile industry or the handloom industry in India being adversely affected if the duty is also imposed on imported silk fabric of all description both in India and Burma.

So, I suggest for the protection as below:—

1. (a) Protection should be such that no Japanese raw silk for 13/15 denier to 28/30 denier is sold in Indian market at price less than Rs. 7-8 (Rupees seven and annas eight) per pound and no Chinese (Canton) filature silk is sold at a price less than Rs. 6-8 (Rupees six and annas eight) per pound and no Italian Ghora (thick quality) is sold at a price less than Rs. 4 (Rupees four) per pound and duty should be imposed in the same proportion to other imported raw silk, silk yarn and silk fabric.

(b) Protection should be both in form of *ad valorem* and specific duty. In addition bounties should be given to the producers.

(c) Protection should be at least for 10 years and should be extended for longer period if required.

(d) India Government is adding much to their revenue from the duty on foreign silk and raw silk but their expenditure towards the Indian Silk Industry is insignificant. The Government, therefore, should kindly spend major portion of the amount realised from such duties for the improvement of the Indian Silk Industry.

(e) Railway freight is also another hindrance to the improvement of the Indian Silk Industry. Generally, the raw silk is booked by Railway parcel to the different parts of India for which heavy freight is required to be paid increasing thereby its prices. If it is sent by goods train, it reaches late and freight is also not favourably low. Moreover, Railway companies do not take the risk of theft or damage if occurred in transit, either booked by parcel or goods train, whereas foreign raw silk is carried to the nearest port of the consuming centre on a nominal freight. I suggest to reduce the railway freight of indigenous raw silk booked to different parts of India.

Besides protection, if the industry is to be revived improvement should be introduced in the following lines:—

- (1) Introduction of improved method of cultivation of mulberry leaves to get large quantity of leaves in cheaper cost.
- (2) Supply of disease-free seed of the better races to the rearers and to supervise rearing in every home of rearers so that no one complain about its failure. If it fails Government should give him subsidy.
- (3) Introduction of more scientific method of reeling and re-reeling and to open more training institute in the reeling areas.
- (4) Besides only training institute like Peddio Silk Reeling School, Government of Bengal through the Department of Industries should run at least 100 improved reeling and sufficient number of re-reeling machines to place a large quantity of best uniform raw silk and re-reeled silk in the market in competition with the imported raw silk. This may be done in commercial basis and cocoons should be purchased at not less than the cost of production and loss if any should be borne by Government.
- (5) Government of Bengal should also purchase raw silk of country Ghai at the reasonable price so that reelers may get some profit and place it side by side with their improved Ghai.

In conclusion I beg to say that if adequate protection as suggested above is granted and reduction of railway freight is allowed and if India Government and Government of Bengal spend much more money for the improvement of this industry suggested above every one can hope that the industry will revive in no distant future and may stand in competition with the imported foreign silk and raw silk.

43. J. C. CHOWDHURY, Esq., Silk-Expert, Tripura State Agricultural Service, Agartala, Tipperah State, Bengal.

Letter dated the 29th November, 1938.

I have the honour to bring to your kind notice that I am interested in Sericulture practically from the establishment of scientific Sericulture in Bengal and India.

2. My experience is extended all over India and the ways and means necessary to be adopted for new localities are my specialities and it is a

fact that all possibilities for all round advantages to be achieved in connection with this industry is a matter which needs closer attention to be paid towards introduction in new localities along with the indigenous attempts for the revival of the industry in moribund condition.

3. In my humble knowledge the Government attempts are confined to definite places, but above these there are localities where this could be most profitably introduced, without active Government support the industry could not develop.

4. For the present the Bengal Sericulture with the tropical worms fully occupies the plain land areas, but it is not known if any special attempt is made to introduce the same through experiments and propaganda, as is the case with all other crops with the provincial agricultural Departments.

5. Attempts for revival of the industry in old localities with old and indigenous varieties of worms are questions so far appearing to be attended with due attention with the local grants, but this could profitably be extended even in table land and submontane regions including levels slightly lower than the previous ones.

6. As my experience is extended over northern and eastern Himalayan areas and the table land of Mysore as well as land I am living in at present.

7. We had elaborate experiments in Tripura State with all the best races of the world and I am of opinion that the Mysore varieties (*B. Maridialis*) are the best worms for the November crop.

8. *B. Croesi* of Bengal does well as an indigenous race from May to June.

9. Similarly excellent result is produced in February by rearing the Var, Delouca and Gorio seeds including the Japanese races as imported eggs, after Hibernation as established in Kashmir.

10. As silk in India is having a real consideration of the guiding authorities, my humble suggestions are offered only for localities other than indigenous ones where the Departments, such as Forest, Education, Agriculture and Industry could co-operate.

11. Regarding the question of Hibernation of eggs, there is every possibility of importing eggs from Italy or France through air service, all the year round, for suitable requirements, thereby three crops of superior races of worms could be reared with a better and profitable yield of crops which will economically solve the problem of so-called competition, demand and supply rendering better facilities for profit.

12. Yes, it is always good to try to remove the Moribund condition of a thing which is ancient and it is also worthwhile ascertaining how far the success is achieved to meet the demand of silk which India is in need of.

13. Imports could easily cease for a thing which is at our disposal. Millions of pounds of raw silk could be produced with 5 years old millions of mulberry trees. Mulberry trees grow where other trees grow. Seasons with useful temperature are always at our door ready to serve with smiles. I am fully confident that the time has come if proper attempts are made to introduce the industry in suitable localities, the efforts will not remain fruitless with the fostering care of the local Governments. Agricultural Departments have ample scope to popularise the plantation of mulberry along with other field crops.

14. Needless to say that it is a cottage industry, rather a subsidiary industry and as such, the problem of reconstruction of villages, mass uplift in Mr. Naranbati Choudhury's scheme will be greatly helped by this.

"But what the villages need is guidance to the help them to help themselves, in order that they may utilise their leisure time which is more than six months in a year, etc."

15. As this is a cottage industry it needs subsidiary help and as such this should be dealt with as a minor cottage industry, I mean from leaf to cloth.

16. Cocoons could be reared by everybody with a little insight, a set of mulberry growers could earn a lot by growing only mulberry trees. When the cocoons are produced, buyers will come forward to purchase the whole lot and thereby make profit in buying and reeling, etc. Of course conditioning of silk is a matter that will require a complete standardization in reeling according to Deniers and the market demand. The test will now doubt rectify the faults in reeling, thereby control the uniformity of profit and loss improving the quality and creating a steady market.

17. But apart from all these projects, my long standing experience is fully based on individual enterprise in a land where millions are sitting idle and passing through unemployment, will surely be in a position to work in Divisions from leaf to cloth.

18. The glorious name of late Sir Thomas Wardle is with Kashmir silk. The same was done in a new locality where thousands are getting employment through silk.

Similarly Tipu Sultan's name is with the Mysore silk and the name of a Chinese queen is with the China silk.

19. The Sericultural experiments in Tripura State was started by His Highness late Maharaja Radha Kishore Manikya Bahadur and the same was highly fostered by His Highness late Maharaja Birendra Kishore Manikya Bahadur of Tripura and the present Ruler His Highness Sir Bir Bikram Kishore Deb Barman Manikya Bahadur, K.C.S.I., is taking keen interest in its introduction in some localities through the State Agricultural Department.

20. My past association with the silk commission (Lefroy Commission) which was witnessed at Changamunga Forest Salvation Army Sericultural Camp near Lahore, met highest appreciation by Sir Michael O'dyer, Sir Thomas Holland, Sir Barnes and others and afterwards at Simla by Lord Chelmsford, the then Viceroy of India, when on visit to Sir Michael O'dyer Silk Institute at Simla.

21. I must gratefully remember late Commissioner Booth Tucker of the Salvation Army who fought a great battle for the salvation of the silk industry in India with my assistance and after all India is with silk now.

22. The Changamunga experiment was conducted by me with success and it was altogether a huge affair to rear 100 ozs. of eggs in one place under one control concentrated, which is not a general principle of the industry.

23. I must close with the next point of problem in the matter of silk growing in Tripura State with the following reports which will speak for themselves.

24. My idea of sending this short note to the Board is only to enlighten you on my experience on the possibilities, protection or fostering and also the development on the lines of the industry.

25. In conclusion I beg to pray that my experience of past may be of some practical utility to the problem of Sericulture in India and the Tariff Board in which I find that the States are included and the note on the results of experiments and research in this state of Tripura are also sent herewith for kind information. (Not printed.)

44. Mr. NAGARMAL, c/o Messrs. BISESARLAL CHIMANLALL & Co., Calcutta.

(1) *Demi-official letter No. 1256, dated the 15th November, 1938, from the President, Tariff Board, to Mr. Nagarmal, c/o Messrs. Bisesarlal Chimanlall & Co., 75, Cross Street, Calcutta.*

Will you kindly send by return of post recent c.i.f. prices of Canton and Japanese silk of 20/22 denier per lb., white and yellow.

(2) Letter dated the 4th December, 1938, from Nagarmal Bhuvalka, Esq.,
c/o Bisesarlal Chimanlal & Co., to the President, Tariff Board.

With reference to your letter No. 1256 of the 15th November, 1938, hereby I beg to inform the ~~ex~~-Calcutta prices of Canton and Japanese silk of 20/22 denier per lb. White and Yellow which please note and oblige.

Canton.

	Rs.	A.	P.
10th January, 1938	4	15	0
25th January, 1938	4	14	6
4th February, 1938	4	14	6
9th March, 1938	4	15	0
19th March, 1938	4	14	6
28th March, 1938	4	15	0
14th April, 1938	4	14	6
27th April, 1938	5	10	0
25th April, 1938	6	0	0
28th April, 1938	4	12	6
4th May, 1938	4	12	0
16th May, 1938	4	12	0
11th July, 1938	4	8	0

20/22 White.

13th January, 1938	5	9	0
19th February, 1938	5	8	0
1st March, 1938	5	8	6
7th March, 1938	5	12	6
28th March, 1938	5	12	6
2nd April, 1938	5	11	0
9th April, 1938	5	11	0
25th April, 1938	5	9	0
7th May, 1938	5	10	0
24th May, 1938	5	8	0
2nd June, 1938	5	6	0
15th June, 1938	5	8	0
5th July, 1938	5	5	6
13th July, 1938	5	8	0
19th September, 1938	5	14	0
25th October, 1938	5	12	6

20/22 Yellow.

8th January, 1938	5	10	0
28th March, 1938	5	11	6
15th April, 1938	5	11	0
29th April, 1938	5	10	0
8th June, 1938	5	9	0
23rd June, 1938	5	8	0
15th July, 1938	5	8	0
19th September, 1938	5	14	0
27th September, 1938	5	12	0
8th October, 1938	5	14	0

45. M. N. DE., Esq., Bhagalpur.

Letter No. 2805, dated the 22nd June, 1938.

I have the honour to enclose five copies of my answers to your queries.

ANSWERS TO SERICULTURAL ENQUIRY SERIALLY.

General Questionnaire.

1. There was only one rearer in Bihar in 1934 but now there are about 50. No one is entirely or partly dependent upon it for their livelihood.
2. The rearers grow mulberry and rear worms from the eggs distributed by the Government Seed Supply Station. The cocoons are sold locally or to the Government. The Government has granted subsidies to about 33 rearers.
3. Exact figures not available.
4. From one maund of green cocoons of the Nistari race about 2½ seers of raw silk is obtained. From Chinese race about 3 seers, from Japanese race 3½ and Italian race 3½ seers of raw silk can be obtained.
5. The Nistari, the Boropolu and the Mysore races.
6. No separate house has been constructed.
7. Figures not available.
8. More space and ventilation are being given. More importance is given to disease free eggs and disinfectants. The mortality is less now than before.
9. From local seed. Seed produced separately. As eri and mulberry worms are reared in the same room in the seed stations no separate account is kept.
10. There is no legislation but disease-free seeds are distributed. The crops are successful.
11. Multivoltine 5 broods in a year and univoltine one brood. Multivoltine 52,000. Univoltine 36,000 green cocoons per ounce. 60 ounces per year.
12. No foreign race reared on a large scale.
13. Seed cocoons are collected from a disease-free brood, medium sized compact cocoons are selected. Healthy moths are kept for copulation and oviposition. The pasteur cellulaire method is adopted.
14. About 10 per cent. wastage now. Formerly the wastage was about 45 per cent.
15. Mulberry leaves. Rearers rear from the leaves of their own land. The initial cost is Rs. 30 per acre and recurring Rs. 15 yearly. Cowdung and silt are used as manure. Trees have been planted on the boundary land. The yield of leaves per acre from bush plantation is 150 maunds annually. 16 to 20 maunds of leaves are required per ounce. The cost of 20 maunds of leaves to the breeders will be about Rs. 4 to Rs. 5.
16. Yes.
- (b) Four crops. Tree preferable. Figures not available.
17. Not available.
18. Cocoons are selling rearer now as compared with other food crops. As the price of cocoon is high now new rearers are taking up the industry and with that object in view they are planting mulberry.
19. Tree mulberry is being planted. It will take about 4 years more to get the results.
20. No improvement.
21. From 1 ounce of multivoltine eggs 50 seers of green cocoons and 38 seers of univoltine cocoons are obtained. No improvement.

22. First generation hybrids yield about $1\frac{1}{2}$ times more silk but they degenerated in successive generations.

23. Figures not available.

24. Rs. 16 to Rs. 18 per 82 lbs. in 1933-34. Rs. 22 per 82 lbs. in 1938.

25. The breeder sells his cocoons at once. He generally cannot afford to wait. There is no filature in the Province and hence figures not available.

26-54. No filature in the Province and hence figures are not available.

55. The price of Indian silk yarn is Rs. 6 per lb., and mill spun silk Rs. 4 to 5 per lb., artificial silk As. 12 per lb. and staple fibre Rs. 2-6 per lb.

56. Superior reeled Japanese mulberry raw silk and reeled tasar are selling at Rs. 5 and Rs. 4 respectively per lb. whereas Indian mulberry raw silk and tasar sell at Rs. 5-8 and Rs. 6-8 respectively.

57. Imported raw silk superior to Indian silk in winding uniformity, bone and in lustre and in whiteness. The imported silk is cheaper. The price ought to have been 40 per cent. more.

58. Not known.

59. Imported raw silk and tasar are now competing both with Indian raw silk and tasar and noil is competing with hand spun eri.

60. A part is being hand spun and a part exported.

61 & 62. Not available.

63. First generation crosses always yielded about $1\frac{1}{2}$ times more silk than pure races.

65. Not available.

66. To improve the quality of the reeled silk by establishing filature and re-reeling plant and to have a silk conditioning house for testing silk.

67. To England and United States. Decreasing in America and increasing in England.

	England.		New York and London.	
	1937-38.		1936-37.	
	Rs.	A. P.	Rs.	A. I.
Export in America .	7,685	1 0	11,432	13 6
Export in England .	5,509	7 2	4,456	6 11

68. Not available.

69. 100 per cent. tariff. A duty of 100 per cent. should be imposed again on improved raw silk whereas spun silk should be taxed 70 per cent. To relieve the weavers who will be out of employment plants for spun silk, artificial silk and staple fibre should be set up in India.

(c) 10 years for the present.

70. (a) In the beginning the textile industry will lose but it will make up later on (b) The handloom industry also will suffer for want of suitable raw materials but India will produce raw silk in increasing quantity in course of time both the weavers and the rearers will be gainers. It is difficult to state whether other industry will be affected.

71. Price of raw silk Rs. 10-13 hand twisting charges Rs. 2.

72. Many new rearers have begun to plant mulberry and rear silkworms.

73. The Government are granting subsidies, distributing disease-free seeds and mulberry cuttings and deputing instructors to advise rational methods of rearing.

74. Yes. By introducing tree mulberry. (1) As the initial and recurring cost of the tree mulberry is very little the breeders will be able to sell 20 seers of leaves required for an ounce of eggs for Rs. 2 to Rs. 3 in the place of Rs. 4 to Rs. 5 which they spend now. Thus the price of raw silk will be reduced to Re. 1 to Rs. 1-8 per lb.

46. PAD AMPAT SIGHANIA, Esq., Cawnpore.*(1) Letter dated the 11th July, 1938.**Re: TARIFF BOARD INQUIRY—SERICULTURAL INDUSTRY.*

With reference to your letter No. Gov./120, dated the 4th July, 1938, I have to inform you that out of my group of mills only Messrs. Juggilal Kamlapat Cotton Spinning & Weaving Mills Co., Ltd., and Messrs. The Laxmi Ratan Cotton Mills Co., Ltd., Cawnpore, have been using artificial silk.

I am sending you herewith a statement showing the quantity of artificial silk used by each of these concerns and I hope you will find them in order.

Artificial silk used in the Juggilal Kamlapat Cotton Spinning & Weaving Mills Co., Ltd., Cawnpore, from August, 1936 to April, 1938.

	Lbs.	Ozs.
From August, 1936 to December, 1936 .	4,919	0
From January, 1937 to December, 1937	15,670	0
	1,930	
From January, 1938 to April 1938 .	4,255	10
	<u>26,774</u>	<u>10</u>

Staple fibre used in the Laxmiratan Cotton Mills Co., Ltd., Cawnpore, from October, 1937 to April, 1938—

8 Bales—Staple Fibre—3,406 lbs.

(2) Letter from the Tariff Board, to Padampat Singhania, Esq., Cawnpore, No. 716, dated the 19th July, 1938.

I am directed to acknowledge receipt of your letter, dated the 11th July supplying information about the quantity of artificial silk yarn consumed by your mills. The Board would like to have your answers to the following supplementary questions as early as possible:—

- (a) Is artificial silk yarn used for mixtures or for pure artificial silk goods?
- (b) If for the latter, what qualities of cloth are being made from it.

(3) Letter dated the 22nd July, 1938.

With reference to your letter of the 19th instant, the artificial silk is being mixed in mixture in our Mills.

47. Millowners' Associations, Bombay, Calcutta, Cawnpore, Ahmedabad.

(1) Demi-official letter No. 2/B., dated the 29th June, 1938, from N. J. Roughton, Esq., C.S.I., C.I.E., I.C.S., Secretary, Tariff Board, to T. Maloney, Esq., Secretary, Bombay Millowners' Association, Patel House, Churchgate Street, Bombay.

You are probably aware that the Indian Tariff Board has been asked to investigate the claims for further protection to the Sericultural Industry.

The Board has noticed a sudden rise in the imports of artificial silk yarn and staple fibre especially in 1937-38 as compared to 1936-37. It has been informed that since the last five years the cotton and the woollen mills in India are using these yarns to a much greater extent than they did before in the manufacture of mixed goods. The Board would feel grateful if you can supply it with figures showing the quantities of these materials used by the cotton and woollen mills in India since 1933-34.

Could you kindly supply similar information about mills who are not members of your Association or suggest means by which we could get it?

- (2) *Letter No. 3/B., dated the 29th June, 1938, from the Tariff Board, to the Secretary, Bengal Millowners' Association, 6, Lyons Range, Calcutta.*

You are probably aware that the Indian Tariff Board has been asked to investigate the claims for further protection to the Sericultural Industry. The Board has noticed a sudden rise in the imports of artificial silk yarn and staple fibre especially in 1937-38 as compared to 1936-37. It has been informed that since the last five years the cotton mills in India are using these yarns to a much greater extent than they did before in the manufacture of mixed goods. The Board would feel grateful if you can supply it with figures showing the quantities of these materials used by the cotton mills in India since 1933-34.

- (3) *Letter No. 4/B., dated the 29th June, 1938, from the Tariff Board, to the Secretary, Cawnpore Millowners' Association, c/o Messrs. Begg Sutherland & Co., Cawnpore.*

You are probably aware that the Indian Tariff Board has been asked to investigate the claims for further protection to the Sericultural Industry. The Board has noticed a sudden rise in the imports of artificial silk yarn and staple fibre especially in 1937-38 as compared to 1936-37. It has been informed that since the last five years the cotton and the woollen mills in India are using these yarns to a much greater extent than they did before in the manufacture of mixed goods. The Board would feel grateful if you can supply it with figures showing the quantities of these materials used by the cotton and the woollen mills in India since 1933-34.

- (4) *Letter No. 5/B., dated the 29th June, 1938, from the Tariff Board, to the Secretary, Ahmedabad Millowners' Association, Old Reform Club Building, Ahmedabad.*

You are probably aware that the Indian Tariff Board has been asked to investigate the claims for further protection to the Sericultural Industry. The Board has noticed a sudden rise in the imports of artificial silk yarn and staple fibre especially in 1937-38 as compared to 1936-37. It has been informed that since the last five years the cotton mills in India are using these yarns to a much greater extent than they did before in the manufacture of mixed goods. The Board would feel grateful if you can supply it with figures showing the quantities of these materials used by the cotton mills in India since 1933-34.

- (5) *D.-o. letter No. 2815/161 of 1938, dated the 2nd July, 1938, from the Millowners' Association, Bombay.*

Your letter No. 2/B., dated the 29th June, 1938. I have been examining the position in regard to the imports of artificial silk and staple fibre in 1937-38 as compared with 1936-37 and previous years. The figures according to my estimation are as shown in the attached table. You will note that it is only since 1937-38 that the imports of staple fibre, staple fibre yarn

and staple fibre mixed yarn have been shown separately from other textiles and artificial silk yarn. Previous to 1937-38, the figures of staple fibre yarn and staple fibre mixed yarn were included along with artificial silk yarn and the imports of staple fibre were included in the imports of other textiles raw. The increase in the use of artificial silk yarn in 1937-38 was phenomenal, but it has undoubtedly been increasing in popularity for many years. It is chiefly used by the handloom industry and by small weaving factories, a number of which are reported to have been started in Bombay and in the Punjab. These factories usually have anything from 10 to 100 looms run on electric power, the looms themselves being imported mainly from Japan. The products of these factories compete against the mixed artificial silk goods, and coloured goods produced in cotton mills and against the 100 per cent. artificial silk fabrics produced by the handloom industry. I do not know whether they can be said to compete against real silk goods which are naturally much higher in price.

As regards staple fibre yarn, my understanding is that it is only used in very small quantities by the cotton trade. I do not know to what extent it is used by the woollen mills, but I know that it is being largely used by the small weaving and knitting factories in the Punjab. I think we might also assume that the staple fibre mixed yarn is used by the small weaving and knitting factories round about Amritsar.

As regards staple fibre, I should imagine that practically the whole of the imports are consumed by the Buckingham and Carnatic Mills and the Bangalore Woollen Cotton and Silk Mills [Agents, Messrs. Binny & Co. (Madras), Limited, Madras]. I believe that they use it for the production of speciality coatings. Here again, the competition is directly against mill made cotton goods. I regret that I am not in a position to send the Board figures showing the quantity of artificial silk yarn, staple fibre yarn, staple fibre mixed yarn or staple fibre used in the cotton and woollen mills of the country. To ascertain the information you require it would be necessary to write individually to every mill in India, and even if we did write, I do not know whether the mills would be in a position to give us accurate information for past years.



बुकराभ नयन

From	Artificial silk yarn.		Total.	Other Textiles (Raw).
	Italy.			
	Japan.	lbs.		
	lbs.	lbs.		cwts.
1931-32	436,045	3,899,354	6,811,870	1931-32 ..
1932-33	1,798,903	5,608,756	9,293,640	1932-33 42
1933-34	2,542,319	4,286,717	8,219,787	1933-34 13 Includes staple fibre.
1934-35	8,896,571	6,477,423	15,747,982	1934-35 669
1935-36	9,956,846	3,953,586	14,911,162	1935-36 1,541
1936-37	15,129,540	1,939,951	17,628,884	1936-37 2,711
1937-38	28,238,426	2,766,285	31,589,038	1937-38 1,284
			2,422,037 (Staple fibre yarn.)	lbs.
			69,125 (Staple mixed yarn.)	190 773 Staple fibre.

- (6) Letter No. 2641, dated the 27th July, 1938, from the Secretary, Ahmedabad Millowners' Association, Ahmedabad.

With reference to your letter No. 5/B., dated the 29th June, 1938, I have the honour to state that according to the information received so far from 8 of our member mills, the figures showing the quantities of artificial silk yarn used by them are as given in the attached statement. As regards other mills in Ahmedabad, I shall revert to the matter again in due course.

Statement showing the artificial silk yarn consumed in Ahmedabad during 1933, 1934, 1935, 1936, 1937 and 1938.

Name of Mills.	1933.	1934.	1935.	1936.	1937.	1938.
The Vijay Mills Co. Ltd.	2,880	1,572	3,190	2,294 up to June.
The Ajit Mills	16,630	7,000	..
The National Mills Co.			Not using.			
The Ahmedabad Jubilee Mills.	..	4,948	9,935	9,084	53,185	..
The Nagri Mills	370	220	4,780	11,760	..
The Jayanti Mills .			Not using.		2,200	1,210 up to May.
The Rohit Mills	8,630	17,870	1,310
The Aryodaya Grayling and Manufacturing Co. Ltd.	241	602	1,079	..

48. Indian Central Cotton Committee, Bombay.

- (1) *Demi-official letter No. 545, dated the 24th May, 1938, from N. J. Roughton, Esq., C.S.I., C.I.E., I.C.S., Secretary, Tariff Board, to D. N. Mahta, Esq., Secretary, Indian Central Cotton Committee, Vulcan House, Nicol Road, Ballard Estate, Fort, Bombay.*

The Tariff Board is investigating the question of protection to the Sericultural industry in India. The Board understands that yarn made from staple fibre competes with the product of the Indian silkworm. The import of the staple fibre into India is a comparatively new thing. It is possible that you have made some investigations into the manner in which it competes with cotton. If you have any information which you think will be of use to the Board in connection with its present enquiry, I should be most grateful if you could let us have it.

- (2) *D.O. No. 7093, dated the 1st June, 1938, from Mr. D. N. Mahta, Secretary, Indian Central Cotton Committee, Bombay, to Mr. N. J. Roughton, Esq., C.I.E., I.C.S., Secretary, Tariff Board.*

Please refer to your D.O. No. 545, dated the 24th May. No investigations into the manner in which staple fibre competes with cotton have so far been undertaken by the Indian Central Cotton Committee. The price at which spun rayon is produced is not dear and it is, therefore, able to compete with cotton, particularly mercerised cotton (chemically treated

cotton), but it would not be proper to say that it is a substitute for either cotton or silk. Staple fibre, used some three years back, was mostly rayon waste cut into definite lengths, but staple fibre, as it is used to-day, is a definite textile individual itself. But I doubt if it can be truly said that staple fibre competes with real silk. It is cheaper, but otherwise so very different from silk that it cannot be used as a substitute for the latter.

With the object of finding out more uses for Indian cotton, particularly of the short staple types for which the export market is becoming very uncertain, the Cotton Committee are investigating the possibility of utilising the surplus cotton for the production of artificial silk in India. As you are probably aware, the Bombay Government have also recently sanctioned a sum of Rs. 75,000 for experiments in connection with the manufacture of artificial silk. With the possibilities of expansion which staple fibre offers there is little doubt that it will, before very long, have to be looked up on as a separate textile material, i.e., in addition to cotton, silk and wool.

49. Messrs. HAZARAT & Co., Kamer Building, 106, Cawasji Patel Street, Fort, Bombay.

(1) *Letter No. 1/19141, dated the 13th June, 1938.*

With reference to your press communique, dated the 7th May we beg to request you to please send us your questionnaire setting out the points on which information is required by the Board about the question of protection to be given to Sericultural industry.

Our opinion is that the protection given to the industry is enormous and the burden of it falls heavily on the handloom weavers.

We beg to point it out to you that your press communique is so worded as to give an impression to the reader that the enquiry has nothing to do with Rayon Yarns and textiles. This is the reason why Bombay merchants and factories dealing in Rayon yarns and textiles do not talk anything about the subject matter of this inquiry.

(2) *Letter No. 1/19462, dated the 21st July, 1938.*

We beg to send you herewith an *ad verbatim* copy of the figures recently received from Japan about silk industry.

We hope this should be useful for your purpose.

FROM THE JAPANESE TEXTILE JOURNAL OF JUNE, 1938.

Sericultural Industry in Japan.

Interesting figures have now been published by the Department of Agriculture and Forestry regarding the sericultural industry for last year.

The total area of mulberry farms was 561,072 chobu or about 1,402,600 acres (one chobu being about 2½ acres) a decrease of 5,138 chobu compared with the previous year. In comparison with the recent high—714,175 chobu in 1932 this represents a decrease of 153,103.

This decrease is due largely to the readjustment of mulberry farms, especially the continued encouragement of replanting. Many small

farmers have therefore given up cocoon raising. As shown in the following table, there was a decrease of over 400,000 in the past eight years:—

	Mulberry farms.	Number of households.
	Chobu.	
1929	625,672	2,216,602
1933	640,178	2,002,187
1936	566,210	1,856,551
1937	561,072	1,815,216

In spite of the above decrease in both mulberry farms and cocoon raisers, there was a fair increase in the production of cocoons last year:—

	Production. (Units: 1,000.)	Yen.
1929	102,093	655,000
1933	87,139	203,871
1936	92,892	386,640
1937	85,970	419,600

The average figures for individual households are as follows:—

	Mulberry farms. Chobu.	Production. Kwan.	Yen.
1929	0.28	46	295
1933	0.31	43	102
1936	0.31	44	208
1937	0.31	47	231

Below we give the average price (per kwan, i.e., 8.28 lbs.):—

	Yearly.	Spring.	Summer-Autumn.
1929	7.06	7.57	6.63
1933	5.28	6.25	4.27
1936	4.94	5.06	4.81
1937	4.88	5.55	4.13

(3) Price quotations of several kinds of silks.

	Per lb. Rs. a.
Japanese filature silk—20/22 Deniers—present price	5 0
Japanese dupion filature	3 12 to Rs. 4
Cotton silk filature	4 8
Current price 40/2 for staple fibre	0 14
Staple fibre 60/2	1 1
Staple fibre 80/2	1 5
Standard Art Lustre silk 150 deniers	0 11

Landing charges—

Rs. 2 per case of 200 lbs. for artificial silk and staple fibre.

Rs. 1-8 per case of 133 lbs. or 60 kilos. for raw silk.

Rs. 1-12 per case of 400 lbs. for staple fibre cotton.

Staple fibre cotton is used by the cotton mills for mixing with cotton for the manufacture of cloth. It is not used by the handloom weavers, nor the mills who use staple fibre cotton sell yarn made out of it in the bazaar. They are mixing it for their own requirements.

50. Exports of Silk Waste.

- (1) *Letter from the Tariff Board, to (i) Messrs. Volkart Bros., Graham Road, Ballard Estate, Bombay, (i) Messrs. Gorio, Ltd., Hornby Road, 31A, General Assurance Buildings, Bombay, No. 1053, dated the 27th September, 1938.*

In connection with the enquiry into the question of continuance of protection to the Indian Sericultural Industry on which the Tariff Board is at present engaged, the Board would like to know the course of prices in the last few years of silk waste exported from India to outside countries. The Board understands that your firm is engaged in the business of purchase from different centres in India and exports of silk waste and it would therefore be very grateful if you would kindly supply it with particulars regarding the quantities of different grades or descriptions of silk waste exported from India during the last five years together with the prices of each description.

- (2) *Letter from the Tariff Board, to Messrs. Wilson & Co., 5-8, Jehangir Street, Madras, No. 1073, dated the 29th September, 1938.*

In connection with the enquiry into the question of continuance of protection to the Indian Sericultural Industry on which the Tariff Board is at present engaged, the Board would like to know the course of prices in the last few years of silk waste exported from India to outside countries. The Board understands that your firm is engaged in the business of purchase from different centres in India and exports of silk waste and it would therefore be very grateful if you would kindly supply it with particulars regarding the quantities of different grades or descriptions of silk waste exported from India during the last five years together with the prices of each description.

- (3) *Letter dated the 29th September, 1938, from the Gorio, Ltd., Hornby Road, 31A, General Assurance Buildings, Bombay.*

Re: INDIAN WASTES.

We beg to acknowledge receipt of your communication No. 1053, dated the 27th instant.

In reply, we beg to send you herewith a list of our exports of various Indian silk wastes, from 1935 up-to-date.

We have mentioned in the list the Country of Origin, and the current names of the qualities; the year and month of shipment; the quantities exported, and the prices in English Currency, c.i.f., European ports.

We may mention that, in the last few months, demand, for Indian silk wastes, from foreign markets, has considerably slackened.

Statement of Silk Waste Exported from India, from 1935 to 1938, by Gorio, Limited, Bombay.

Years.	Quality of Silk Waste.	Shipment.	Quantity.		C. I. F. Price.
			Kgs.	Lbs.	
1935	Frisonettes (Mysore)	April	5,000	..	6½d. per kilo.
	Filature Waste. (Mysore)	"	1,800	..	1s. 3d. per kilo.
	Frisonettes (Mysore)	May	5,000	..	9½d. per kilo.
	Nimgudar. (Kashmir)	"	..	20,000	3½d. per lb.
	Filature Waste. (Mysore)	June	1,000	..	1s. 3d. per kilo.
	Frisonettes (Mysore)	"	3,000	..	9½d. per kilo.
	Basin Fefuse. (Kashmir)	"	..	60,000	4d. per lb.
	Nimgudar. (Kashmir)	July	..	20,000	3½d. per lb.
	Sarnakh Special "A" (Kashmir).	August	..	2,300	1s. 6d. per lb.
	Sarnakh Special "B" (Kashmir).	"	..	8,300	1s. 4d. per lb.
	Gudar No. 1 (Kashmir)	September	..	4,000	6½d. per lb.
	Nimgudar "	"	..	62,700	3½d. per lb.
	Basin Refuse "	October	..	30,000	3½d. per lb.
	Struza Bengal No. 1	November	5,000	..	10½d. per kilo.
	Frisonettes (Mysore)	October	5,000	..	10d. per kilo.
	" "	"	5,000	..	10½d. per kilo.
	Sarnakh Special "A" (Kashmir).	November	..	8,000	1s. 6½d. per lb.
	Sarnakh Special "B" (Kashmir).	"	..	5,000	1s. 5½d. per lb.
	Gudar No. 1 (Kashmir)	"	..	1,200	6½d. per lb.
	Tussah Waste. (Assam)	"	1,400	..	5½d. per kilo.
1936	Frisonettes (Mysore)	February	5,000	..	10½d. per kilo.
	Sarnakh Special "B" (Kashmir.)	April	..	5,500	1s. 4½d. per lb.
	Sarnakh Special "A" (Kashmir.)	"	..	7,000	1s. 6½d. per lb.
	Nimgudar (Kashmir)	May	..	15,000	3½d. per lb.
	Frisonettes (Mysore)	April	5,000	..	10½d. per kilo.

*Statement of Silk Waste Exported from India, from 1935 to 1938, by Gorio,
Limited, Bombay—contd.*

Years.	Quality of silk Waste.	Shipment.	Quantity.		C. I. F. Price.
			Kgs.	Lbs.	
1936— contd.	Basin Refuse. (Kashmir)	March .	..	22,500	4½d. per lb.
	Frisonettes (Mysore) .	„ .	5,000	..	10½d. per kilo.
	Sarnakh Special "B" (Kashmir).	September .	..	9,900	1s. 6d. per lb.
	Nimgudar (Kashmir) .	„ .	..	19,750	4d. per lb.
	Home silk waste No. 1 (Mysore).	„ .	2,500	..	1s. 10d. per kilo.
	Home silk waste No. 2 (Mysore).	„ .	2,500	..	1s. 5d. per kilo.
	Home silk waste No. 1 (Mysore).	November .	1,000	..	1s. 10d. per kilo.
	Home silk waste No. 2 (Mysore).	„ .	5,000	..	1s. 5d. per kilo.
	Sarnakh Special "A" (Kashmir).	October .	..	3,700	1s. 8d. per lb.
	Sarnakh Special "B" (Kashmir).	„ .	..	3,200	1s. 6d. per lb.
	Nimgudar (Kashmir) .	„ .	..	3,700	4d. per lb.
	Sarnakh Special "A" (Kashmir).	December .	..	3,700	\$45-10 per lb.
	Sarnakh Special "B" (Kashmir).	„ .	..	4,500	\$39-95 per lb.
	Gudar No. 1 (Kashmir) .	„ .	..	2,700	\$15-70 per lb.
	Nimgudar „	„ .	..	7,400	\$9-90 per lb.
1937	Home silk waste No. 1 (Mysore).	January .	2,000	..	2s. per kilo.
	Home silk waste No. 2 (Mysore).	„ .	1,000	..	1s. 9d. per kilo.
	Home silk waste No. 1 (Mysore).	March .	1,600	..	2s. per kilo.
	Home silk waste No. 2 (Mysore).	„ .	1,000	..	1s. 9d. per kilo.
	Gudar No. 1 (Kashmir) .	„ .	..	2,500	8½d. per lb.
	Nimgudar „	„ .	..	6,200	5½d. per lb.

Statement of Silk Waste Exported from India, from 1935 to 1938, by Gorio, Limited, Bombay—concl'd.

Years.	Quality of Silk Waste.	Shipment.	Quantity.		C. I. F. Price.
			Kgs.	Lbs.	
1937— <i>cont'd.</i>	Sarnakh Special "A" (Kashmir).	March .	..	4,200	1s. 11½d. per lb.
	Sarnakh Special "B" (Kashmir).	" .	..	3,800	1s. 9½d. per lb.
	Boild Cocoon (Mysore).	" .	..	10,700	1s. 6d. per lb.
	Home silk waste No. 1 (Mysore).	June .	2,500	..	2s. per kilo.
	Home silk waste No. 2 (Mysore).	" . .	2,000	..	1s. 9d. per kilo.
	Sarnakh Special "A" (Kashmir).	" . .	..	3,700	2s. ¼d. per lb.
	Sarnakh Special "B" (Kashmir).	" . .	..	2,000	1s. 10½d. per lb.
	Ningudar (Kashmir) .	" . .	..	2,000	5½d. per lb.
	Home silk waste No. 1 (Mysore).	" . .	2,500	..	2s. per kilo.
	Home silk waste No. 2 (Mysore).	" . .	3,000	..	1s. 9d. per kilo.
1938	Frisonettes (Mysore) .	March .	3,700	..	1s. 8½d. per kilo.

(4) Letter dated the 4th October, 1938, from Messrs. Wilson & Co., 5-8, Jehangir Street, Madras.

SILK WASTE.

We thank you for your letter No. 1073, dated the 29th ultimo.

The only description of silk waste in which we are interested is that which is obtainable in Mysore. We give below details of the quantities shipped by us during the last five years together with the prices paid.

Year.	Quantity shipped.	Purchase Price per maund of 25 lbs.		
		Tons.	Rs. A. P.	Rs. A.
1932	10	7	0 0	
1933	15	2	3 0	
1934	77½	2	1 6	to 3 0
1935	80	3	0 0	„ 4 11
1936	75	4	12 0	„ 8 12
1937	55	9	8 0	„ 11 4
1938 (to date)	30	10	12 0	„ 9 14

- (5) *Letter dated the 15th October, 1938, from Messrs. Volkart Brothers, Bombay.*

In reply to your communication No. 1053 of the 27th ultimo we regret to inform you that we are unable to give you the desired information, as we have discontinued exports of silk waste a number of years ago.

51. Mills manufacturing Silk and Artificial Silk Goods.

- (1) *Circular letter No. 544-A, dated the 24th May, 1938, from the Tariff Board to certain merchants, manufacturers and mills.*

I am directed to forward the detailed questionnaire regarding the Sericultural Industry. The Tariff Board hopes that you will send a reply (with 5 spare copies) to the questionnaire as soon as possible, and in any case not later than 23rd July, 1938.

- (2) *Circular letter No. 641, dated the 27th June, 1938, from the Tariff Board to certain Silk and Artificial Silk Goods Manufacturers.*

In connection with the Sericultural Industry Enquiry I am directed to forward herewith a copy of the questionnaire intended for mills mainly engaged in the manufacture of silk and artificial silk goods. The Board will be grateful if your replies thereto could be sent (with five spare copies) so as to reach this office not later than 23rd July, 1938.

- (3) *Letter, dated the 7th July, 1938, from Messrs. Kamala Mills, Limited, Tulsi pipe Road, Off Delisle Road, Bombay.*

With reference to your circular No. 641, dated the 27th June, 1938, we are sending you herewith the questionnaire form with 5 spare copies which please receive and oblige.

Form I.—Total expenditure incurred on the production of silk goods.

1933-34. 1934-35. 1935-36. 1936-37. 1937-38.

1. Raw material . . .	}	Nil.
2. Mill labour . . .		
3. Power and fuel . . .		
4. Current repairs and maintenance . . .		
5. Supervision and establishment . . .		
6. Miscellaneous, rent, municipal taxes, insurance, etc.		
7. Other items . . .		
Total		

Form II.—Works cost per yard of cloth.

	1933-34	1934-35	1935-36	1936-37	1937-38
1. Raw material					
2. Mill labour					
3. Power and fuel					
4. Current repairs and maintenance					
5. Supervision and establishment					
6. Miscellaneous, rent, municipal taxes, insurance, etc.					
7. Other items					
Total					

Nil.

We have started Rayon Silk Looms from June, 1938. We do not manufacture Rayon and Staple fibre yarn but importing the same for our use.

(4) Letter No. 718, dated the 19th July, 1938, from the Tariff Board to Messrs. Kamala Mills, Limited, Bombay.

With reference to your letter, dated the 7th July, 1938, I am directed to say that the Board realizes your inability to send them cost figures in view of the fact that your factory has started working since June, 1938. They would however like to have the following information which they think can be supplied by you without much difficulty:—

- (a) Maximum capacity of your mill.
- (b) Number of looms installed.
- (c) Kinds of cloth manufactured in your mill.
- (d) Number of men working.

And similar other information which may be useful to the Board during the present Sericultural Industry Enquiry.

(5) Letter, dated the 25th July, 1938, from the Kamala Mills, Limited, Bombay.

With reference to your letter No. 718, dated the 19th July, 1938, we beg to supply you the following information:—

- (a) Maximum capacity of your mill 3,000 yds. per day of 9 hours.
- (b) Number of looms installed . . . 100: present working 60.
- (c) Kinds of cloth manufactured in your mill Plain Shioze.
- (d) Number of men working . . . At present working—109.

(6) Letter, dated the 15th July, 1938, from the Mahendra Silk Mills, Limited, 105-107, Tamlakanta, Bombay.

Reference your letter, dated the 27th June, 1938.

We are sorry to inform you that we have started our mills since last three months. We have got 100 looms but at present only 50 looms are working and that too not to our satisfaction. Hence at present we are not in a position to make out the answers to your questionnaire. So

please note that we will reply to you when our mills will be put in a complete working order.

Our mill is a private limited company and is registered in India. The capital is in Rupees only and all the shares are held by Indians. Directors are also Indians.

- (7) *Letter No. 731, dated the 20th July, 1938, from the Assistant Secretary, Tariff Board, to the Mahendra Silk Mills, Limited, 105-107, Tamlakanta, Bombay.*

I am directed to acknowledge the receipt of your letter, dated the 15th July, 1938, stating that your mill started only three months ago and that out of 100 looms only 50 are working but none too satisfactorily. You accordingly propose to reply to the Board's questionnaire when the mills are in complete working order.

I am to enquire whether it will be possible for you to furnish replies to the Board's questionnaire by the end of September, 1938, at No. 1, Council House Street, Calcutta.

- (8) *Letter, dated the 30th September, 1938, from the Mahendra Silk Mills, Limited, Kalyan, Bombay.*

As advised by the Assistant Secretary, Tariff Board, from Poona in his letter No. 731, dated the 20th July, 1938, we enclose herewith the replies to the Board's questionnaire. Please note that as we have started our Mills since last 5 months, we can not make out correct figures.

Replies to the Board's Questionnaire.

- (1) (a) Private limited company.
 (b) Registered in Bombay (India), capital Rs. 2,50,000.
 (c) At present 100 per cent. Indian shareholders and 100 per cent. shares held by Indians.
 (d) 100 per cent. Indians are represented on the Directorate and in the superior management of the Company.
 (2) At present the total capacity of our Mills equipped for the manufacture of artificial silk goods is Rs. 2,50,000.
 (3) We started our Mills in the end of April, 1938, and uptil now we have manufactured 1,36,300 yards.

- (4) We have manufactured the following chief classes:—

- (1) Shioji.
 (2) Boski.
 (3) Crepe.
 (4) Voilete.

- (5) (a) Uptil now we have consumed 17,000 lbs. of artificial silk and 3,000 lbs. cotton yarn. We have not yet used raw silk-spun silk and staple fibre. The artificial silk consumed is of foreign origin—

	Lbs.
Japan	15,000
Italy	2,000
Indian cotton yarn	3,000
Total	20,000

- (b) Nil.

(6) (a) Our estimate to-day, of the quantity of raw artificial silk required per yard of cloth is 2.45 ozs.

(b) In the case of mixtures 60 per cent. artificial silk is present.

(7) We are buying from the ready stock from the Bombay market.

(a-f) These replies you can get from the Bombay Silk Yarn Merchants' Association.

(8) .9 lbs. of artificial silk is required for 1 lb. of finished goods.

(9) We get 50 per cent. lower prices than those of imported articles.

(10) We have not yet come across the Indian raw silk, so we cannot know whether our machinery is suitable for it or not.

(11) Artificial silk hanks are given to wind from the hanks to bobbins. From these 70 per cent. bobbins are sized and 30 per cent. wound on the pirns. In the sizing department sized hanks are prepared which are again wound on the bobbins. These sized yarn bobbins are given to the warping department, where the weavers' beams are prepared. These beams are transferred to the drawing department, and then on the looms. Finally the cloth from the looms is taken to the bleaching, dyeing and finishing department.

(12) Nil.

(13) The foreign producers might be getting margin owing to their more production due to their more skilled and efficient labour.

(14) At present 85 looms are working in our Mills and the following wages are given per month:—

	Rs.		Rs.
May, 1938 . . .	1,300	August, 1938 . . .	2,600
June, 1938 . . .	2,100		
July, 1938 . . .	2,200	September, 1938 . . .	2,900

When our mills will work soundly we hope that the wages per month will go to Rs. 4,000 to Rs. 5,000.

We train Indian apprentices and at present 70 per cent. of our workers are trained by us in our own mills. We keep apprentices without any terms, simply relying on them that they will not leave us as they have been taught to earn in our mills.

(15) In all the Indian markets, foreign competition is keenest.

(16) Our products are in a disadvantageous position due to the following reasons:—

Our mills situated at Kalyan, 40 miles away from Bombay. We have to pay freight for the raw goods. Also we have to sell our goods at Bombay and so again we have to pay freight for the finished goods. Moreover we have to pay the following taxes, in the Kalyan Municipality:—

(i) Taxes on iron-oil-finished cloth, coal, wood, etc. Hence our cost of production comes much higher than others.

(17) We have hired the entire mills buildings.

(18) (i) Building: Rs. 1,50,000.

(ii) Building: Rs. 1,75,000 to Rs. 2,00,000.

(19) (a & b) We have not yet taken out any amount for depreciation and Reserve Fund.

(20) (a) Amount of paid-up capital Rs. 1,25,000.

(b) Nil.

(c) Nil.

(21) As our mills started only 5 months ago we have not taken out any balance sheet.

(22) Nil.

(23-24) As regards these questions we are sorry to inform you that to reply these questions is out of our capacity as we are quite new in this silk industry. Forms I and II are enclosed herewith duly filled in.

FORM I.—Total expenditure incurred on the production of silk goods.

1933-34. 1934-35. 1935-36. 1936-37. 1937-38.

From May, 1938, to September, 1938.

	Rs.
1. Raw material—	
Yarn	Rs. 17,000
Sizing materials	2,000
	<hr/> 19,000
2. Mill labour	11,000
3. Power and fuel	1,000
4. Current repairs and maintenance	1,000
5. Supervision and establishment	{ 500
	1,50,000
6. Miscellaneous, rent Rs. 1,000 + Rs. 3,850	4,850
Municipal taxes	500
Insurance, etc.	500
7. Other items—Office and kitchen expenses	2,000
	<hr/>
Total	1,90,350
	<hr/>

FORM II.—Works cost per yard of cloth.

1933-34. 1934-35. 1935-36. 1936-37. 1937-38.

From May, 1938, to September, 1938.

	Rs.
1. Raw material—	
Yarn	Rs. 17,000
Sizing material	2,000
	<hr/> 19,000
2. Mill labour	11,000
3. Power and fuel	1,000
4. Current repairs and maintenance	1,000
5. Supervision and establishment	500
Interest on establishment at 6 per cent.	750
6. Miscellaneous, rent Rs. 1,000 + Rs. 3,850	4,850
Municipal taxes	500
Insurance, etc.	500
7. Other items—Office and kitchen expenses	2,000
	<hr/>
Total	41,000
	<hr/>

Average cost per yard ex-Factory—(136,350 yds.=Rs. 41,000)—As 4-9½.

This average cost price is for the grey cloth. We have not yet started our bleaching-dyeing and finishing Departments.

(9) Letter, dated the 21st July, 1938, from the Sassoon and Alliance Silk Mill Company, Limited, 59, Forbes Street, Fort, Bombay.

We acknowledge receipt of your circular letter No. 641, dated the 27th Juno, enclosing a copy of the questionnaire issued by the Tariff Board. We send herewith original and five copies of our replies together with copies of our Balance Sheets* for the years 1933 to 1937, both inclusive.

1. (a) This is a Public Registered Company.

(b) It is registered in India with rupee capital.

(c) About seventy per cent. of the shares are held by Indian shareholders.

(d) The Board of Directors is composed of three Indians and two Europeans. All the staff in the mill are Indian. The managing agency firm is European.

2. The mill is equipped for the manufacture of artificial silk goods, pure silk goods, and mixtures in equal proportion, viz., one-third each. However, the output actually is regulated by the various sorts in demand which at the present moment is as follows:—

	Yards per diem of 9 hours.
Artificial silk	6,649
Silk goods	53
Mixtures of artificial silk and cotton	107

3. Actual output in yards:—

Years.	Art. Silk.	Silk.	Cotton and Art. Silk Mixtures.
1933	197,739	20,528	413,253
1934	175,078	5,381	375,663
1935	855,276	21,679	447,462
1936	1,365,946	8,194	93,235
1937†	3,249,688	21,914	95,613
Total	5,843,727	77,696	1,425,226

4. The chief classes of goods are:—

	Per cent.
Odhnas of Spun and Neat Silk	1
Sarees of Artificial Silk	10
Saslets or Tafettas of Artificial Silk	79
Viola Sarees of Cotton and Artificial Silk	10
Total	100

* Not printed.

† (Part Double Shift).

5. (a) Annual consumption of raw materials:—

Years.	1933	1934	1935	1936	1937
	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
Raw silk	689	203	696	163	1,289
Artificial silk	39,690	71,000	138,060	198,925	439,570
Spun silk	99	11	1,089	495	1,915

The raw silk and spun silk yarn which we use come from Japan; artificial silk yarn comes from Italy and Japan in the proportion of 60 per cent. of the former and 40 per cent. of the latter.

(b) Imported raw silk is cheaper and better in quality than the indigenous article.

6. (a) About 3 ozs., per yard in our spun and neat silk odhna 45 inches wide.

(b) We make no mixtures containing real silk.

7. We cannot answer the details of this question as our purchases are all made on the basis of mill delivery; presumably the port of importation is Bombay for all such purchases.

8. The following weights of raw material are required for the finished cloth:—

Principal Standard Products.

1. Art silk cloth 1 lb. 1 oz. of art silk yarn.
2. Silk odhna 1 lb. 7½ ozs. spun silk.
3. Cotton and art silk mixtures { 8½ ozs. art. silk yarn.
9½ ozs. cotton yarn.

9. Apart from taffettas which are not now imported from abroad, our prices are roughly on a par with those asked for foreign goods.

10. Our machinery is quite suitable for manufacturing either from Indian raw silk or from imported silk.

11. Spun silk, artificial silk and cotton yarn are bought from the local market and then dyed, wound on to bobbins or pirns, warped, sized, woven and then finished.

12. Prices realised for the principal classes of goods:—

	1933	1934	1935	1936	1937
Saslet 44" (per yard)	As. 8/6	Not made	As. 7/9	As. 6/	As. 6/
Silk odhna (per lb.)	Rs. 10/8	Rs. 10/8	Rs. 10/4	Rs. 9/	Rs. 9/
Cotton and art. silk sarces (per yard).	As. 6/7	As. 6/7	As. 6/5	As. 5/8	As. 5/8

13. Judging from the low rates at which Japanese firms sell their productions it is obvious that their margin of profit is very small. It may even be possible that these goods are dumped into India, but no proof of such action is obtainable.

14. Labour force employed:—

Years.	Total No. of Operatives.	Total annual wage bill.
1933	569	1,00,100
1934	569	73,500
1935	542	1,27,800
1936	496	1,37,220
1937 (double shift)	899	2,70,600

We would welcome apprentices but none have offered their services as in the case of cotton mills.

15. Competition is most severely felt in the markets of the Punjab.

16. We are on the same footing as foreign products which are imported through Bombay.

	Rs.
17. (a) & (b) Leases and concessions of land	Nil
(c) Buildings and tanks	1,32,006
(d) Plant and machinery	43,968
(e) Stores, spare gear and stock-in-trade	1,11,907
Cash with Agents	4,99,716

The fixed assets shown above have been depreciated to a considerable extent in the past—*vide* Balance Sheet.

18. A similar mill to ours in our opinion would cost to-day:—

	Rs.
(a) Land and buildings	10,00,000
(b) Plant and machinery	8,00,000
Total	<u>18,00,000</u>

19. (a) Depreciation on buildings since 1933—Nil.

Depreciation on machinery—Nil.

(b) No Reserve Fund has been created since 1933.

20.

Year.	Amount of paid up Capital ranking for dividend.	Actual amount distributed as dividends.	Percentage on the paid up share capital.
	(a)	(b)	(c)
1933	5,00,000	Nil	...
1934	5,00,000	Nil	...
1935	5,00,000	40,000	8
1936	5,00,000	60,000	12
1937	2,00,000*	1,00,000	50

* In 1937 Rs. 3 lakhs were refunded to shareholders.

21. Copies of our Balance Sheets for the years 1933, 1934, 1935, 1936 and 1937 are enclosed herewith.

22.

Year.	Interest on working Capital.	Deprecia- tion.	Head office ex- penses and agents' Commission.	Dividends on share Capital.
			Rs.	Rs.
1933 .	Nil	Nil	25,263	Nil
1934 . . .	"	"	20,753	Nil
1935 . . .	"	"	23,728	40,000
1936 . . .	"	"	24,544	60,000
1937 . . .	"	"	31,745	1,00,000

23. We do not dispute the fact that a Bombay Mill can work cheaper than the handloom industry.

24. Up to about a year ago there was a certain amount of smuggling of silk cloth into India, but since then complaints have been less.

Form I.—Total expenditure incurred on the production of silk goods.

	1933	1934 (Part working only.)	1935	1936	1937 (Double shift working.)
	Rs.	Rs.	Rs.	Rs.	Rs.
1 Raw Material . . .	68,084	1,02,545	1,24,633	1,31,121	3,79,609
2 Mill Labour . . .	1,00,081	73,439	1,27,761	1,37,218	2,70,599
3 Power and Fuel . . .	13,294	12,286	17,589	17,367	29,194
4 Current repairs and main- tenance.	1,294	826	1,669	1,832	4,031
5 Supervision and establish- ment.	17,872	16,720	19,233	23,748	31,042
6 Miscellaneous rent, Muni- cipal taxes, Insurance, etc.	18,425	17,588	21,741	19,542	20,036
7 Other Items . . .	27,612	37,333	71,326	71,504	1,54,655
Total .	2,46,652	2,60,737	3,83,952	4,02,332	8,89,166
Total yards .	631,523	556,123	1,324,428	1,467,377	3,367,205

FORM II.—Works cost per yard of cloth.

	631,523 Yds.	556,123 Yds.	1,324,428 Yds.	1,467,377 Yds.	3,367,205 Yds.	
Based on :		1934 (Part working only.)			1937 (Double shift working.)	Remarks.
	1933		1935	1936		
	A. P.	A. P.	A. P.	A. P.	A. P.	
1 Raw Material .	1 8-69	2 11-40	1 6-07	1 5-16	1 9-49	Raw material.
2 Mill Labour .	2 6-43	2 1-35	1 6-52	1 5-95	1 3-40	Millhands' wages.
3 Power and Fuel	0 4-40	0 4-25	0 2-58	0 2-27	0 1-66	Electric energy and Fuel and Gas.
4 Current repairs and mainten- ance.	0 0-39	0 0-28	0 0-25	0 0-24	0 0-23	Building and Machi- nery repairs.
5 Supervision and establishment.	0 5-44	0 5-77	0 2-73	0 3-11	0 1-88	Senior Staff.
6 Miscellaneous, rent, Muni- cipal Taxes, Insurance, etc.	0 5-00	0 6-08	0 3-17	0 2-55	0 1-15	Rent, Fire Insu- rance and Insu- rance on profit, Directors, Audi- tors and Boiler Inspection fees, Municipal Taxes and Income Tax.
7 Other items .	0 8-39	1 0-89	0 10-34	0 9-36	0 8-89	Office establish- ment charges, water rates, office mill and general Charges and stores.
Total .	6 2-98	7 6-02	4 7-66	4 4-64	4 2-70	

(10) Letter, dated the 23rd July, 1938, from the National Art Silk Mills, Limited, Dadar, Bombay.

With reference to your questionnaire No. 641 of the 27th June, 1938, we have to inform you that we have started our mills very recently and hence we are not in a position to supply you all the information that you require. Still, however, we reply you some of the questions, which we think will be useful to you.

We may bring to your notice that recently silk and art silk mills in Bombay have formed an Association and is to be registered very shortly. The reply to your general questions, the numbers being 9, 11, 13, 15, 16, 18,

23 and 24 will be supplied to you by our Association on behalf of the members and the reply to the remaining are given by us as under:—

1. (a) Private registered company.
- (b) Registered in Bombay (India). Capital is in rupees.
- (c) All the shares are held by Indians.
- (d) All the Directors, Managers and other officers are all Indians.
2. All the 100 looms are suitable for the manufacture of art silk, but with some modifications we can work pure silk and mixture except cotton goods.
3. We started some of our looms in the middle of April, 1938, and at present we have been able to start about 65 looms and we are working on art silk.
4. We are manufacturing mostly flowered taffettas, satins and plain shioze shirtings: all these three qualities are manufactured in about equal quantity.
5. (a) Started only recently, therefore cannot give definite information. The art silk yarn which is used is of foreign origin and is chiefly imported from England, Italy, Japan, Belgium and Holland.
- (b) We are not using raw silk still and hence cannot give our idea.
6. (a) & (b) Reply same as 5 (b).
7. (a-f) We are buying yarn from the local market and the price varies from As. 12 to Rs. 1-8 according to quality and market fluctuations.
8. To get one lb. of finished cloth we should have 1-1 lb. of raw material, i.e., wastage comes to about 10 to 11 per cent.
9. Will be replied by our Association.
10. Yes, with some modifications.
11. Will be replied by our Association.
12. As we have started only recently and as our accounts are still not ready, we are not in a position to reply to your question.
13. Will be replied by our Association.
14. Same as No. 12.
- 15 & 16. Will be replied by our Association.
17. Accounts not yet ready.
18. Will be replied by our Association.
19. Started only recently.
20. Our issued capital is Rs. 2,00,000 and over this we are given credit of about Rs. 25,000 by merchants on account of yarn, stores, etc., supplied. In all about Rs. 2,25,000 is required for block and working capital.
- 21 & 22. Started only recently.
- 23 & 24. Will be replied by our Association.

(11) *Letter, dated the 23rd July, 1938, from the New Era Textile Mills, Limited, Atlas Mills' Compound, Reay Road, Mazgaon, Bombay.*

Herewith we are enclosing the replies of the questionnaire as desired by you.

I. (a) Our mill was a partnership firm till the 30th December, 1937.

(b) Now the company is a private limited company, registered under the Company's Act from 26th January, 1938.

(c) All the Shareholders are Indians.

(d) All the Directors are Indians.

II. & III. 65 looms + 50 looms = 115 looms equipped for artificial silk goods and 12 looms for puro silk.

A factory of 50 looms at Matunga which is recently started is joined with this mills.

Uptill now 50 looms are working on art silk and 12 looms are running on pure silk and the rest which are to run on art silk are recently started.

The mills was started in the month of July, 1936, and actual production started from January, 1937, hence our production is 2,21,448 yards.

IV. Mainly the goods manufactured were plain and about 10 per cent. on sarees.

	Per year.
	Lbs.
V. Raw silk consumed	2,400
Art silk consumed	48,000
	<hr/>
Total	50,400
	<hr/>

(a) The articles of foreign origin, mainly English, Italian and Japanese.

(b) The imported yarns are stronger in strength and have got less impurities.

VI. (a) 1 lb. of raw silk for 6 yards cloth georgette.

1 lb. of raw silk for 4 yards cloth of heavier quality.

(b) No mixtures being used.

VII. We generally buy raw yarns locally and so we are unwaro of the required prices.

VIII. 4 lb. of raw pure silk or art silk is required for a piece of 25 yards.

IX. Our prices are cheaper than imported articles.

X. Yes.

XI. Winding, sizing, re-winding, doubling, twisting, steaming, warping, beaming, drawing-in, weaving, cleaning, bleaching or dyeing and finishing, folding and packing.

XIII. According to our opinion we are remunerative on account of their local yarns, good efficiency.

XIV. Male and female. Rs. 3,800 per month, excluding office staff.

XV. In all markets.

XVI. Railway freights are so high that it is difficult so send our goods to up-country market as the foreign goods are, landed by sea to different ports.

	Rs.
XVII. Block amount	1,80,000 for plant and machinery only.
Stock of	80,000
Process	40,000
	<hr/>
Total	3,00,000
	<hr/>

XVIII. Same as ours. Building would cost about Rs. 80,000.

XIX. (a) & (b) Nil.

XX. (a) (b) & (c) Nil.

XXI. It is under preparation.

XXII. (a) Rs. 1,200 per month. Interest on working capital and loan.

(b) Rs. 5 per cent. on block amount.

(c) Rs. 2,600 per month.

(d) & (e) Nil.

XXIII. They are not injurious as our qualities are different from the qualities of the handloom weavers.

XXIV. Yes. By the reports appearing in the papers.

Form I.—Total expenditure incurred on the production of silk goods.

1933-34. 1934-35. 1935-36. 1936-37. 1937-38.

From the 1st January, 1937 to 31st December, 1937.

	Rs.
1. Raw material	62,500
2. Mill labour	53,760
3. Power and fuel	10,800
4. Current office repairs and maintenance	6,000
5. Supervision and establishment	16,800
6. Miscellaneous, rent, municipal taxes, insurance, etc.	9,600
7. Other items, such as stores, packing, cartage, commission, etc.	10,240
Total	1,69,700

Form II.—Works cost per yard of cloth.

From the 1st January, 1937 to 31st December, 1937.

	As. 6.
1. Raw material	4 6-0
2. Mill labour	3 10-0
3. Power and fuel	0 9-0
4. Current repairs and maintenance	0 7-2
5. Supervision and establishment	1 2-0
6. Miscellaneous, rent, municipal taxes, insurance, etc.	0 8-3
7. Other items, such as stores, packing, cartage, commission, etc.	0 8-8
Total	12 3-1

(12) *Reply to Sericulture Industry Questionnaire for Silk and Artificial Silk Goods Manufacturers by Panalal Silk Mills, Reay Road, Bombay, dated the 22nd July, 1938.*

1. (A) This is private and proprietary concern.

(B) & (C) Question does not apply to this concern.

(D) The management is purely Indian.

2. The manufacturing capacity is of 110 looms.

3. The mill has been newly erected and started working only since three months.

4. Siozi, Satin and Kabe are being manufactured in the mills, percentage of which cannot be definitely given as the working has not as yet been so smooth to enable us to report in this respect.

5. (A) The mill having recently started working, this question does not rise.

(B) This mill is founded to manufacture art silk goods only.

6. (A) Average consumption of imported art silk yarn per one yard of cloth as at present arrives at $3\frac{1}{2}$ ozs.

(B) We do not make any mixture with art silk

7. The mill having very recently started work, the figures in question are not available.

8. Weight of art silk required per pound of finished article as per present results amounts to lbs. 1.10.

9. Will be replied by Silk and Art Silk Mills' Association.

10. Yes. Mostly so but mainly for manufacturing art silk goods.

11. See question No. 9.

12. We have started working since two months the results of which having not as yet reached the required standard, Forms I and II cannot be complied with.

13. See question No. 9.

14. Our labour force employed is of about 125 workmen. We are always prepared to take *bona fide* willing apprentices for training.

15 & 16. See question No. 9.

17. (A), (B) & (C) Building of our factory is hired one.

(D) Cost of the plant and machinery is Rs. 1,75,000.

(E) Other assets amount to Rs. 75,000.

18. See question No. 9.

20. See our reply to question No. 3.

23. See question No. 9.

(13) Letter, dated the 26th July, 1938, from the Secretary, Bipin Silk Mills Company, Limited, 12, Dadar Road, Bombay.

We beg to send you herewith our replies to your questionnaire regarding sericulture industry. Items Nos. 9, 11, 13, 15, 16, 18, 23 and 24 have been jointly answered by Silk and Art Silk Mills Association and hence the absence of replies to these questions in our accompanying replies.

Replies to Questionnaire.

1. (a) Private registered company with limited liability.

(b) In India with rupee capital.

(c) All shareholders are Indians.

(d) All Indian.

2. Three hundred looms with proportionate preparatory and finishing machinery.

3. The mills are under construction and hence cannot give the yearly output.

4. C. O. G. 70 per cent.

Satin 30 per cent.

5. Cannot reply Ref: Reply to question No. 3.

(a) For the present we use art silk yarn of foreign origin.

(b) Cannot get artificial indigenous silk.

6. (a) & (b) Cannot reply.
7. Local purchase 12 annas per lb. mill delivery for 120 den. lustre.
8. 1-1 lbs. of art silk.
9. Replied by Silk and Art Silk Mills Association.
10. Almost suitable.
11. Replied by Silk and Art Silk Mills Association.
12. Mill under construction, hence cannot fill in Form I and Form II.
13. Replied by Silk and Art Silk Mills Association.
14. Labour all Indian. Have not yet decided whether to take up apprentices.
16. Replied by Silk and Art Silk Mills Association.
17. Have taken on lease a part of old cotton mills on a monthly rent basis.
18. Replied by Silk and Art Silk Mills Association.
19. The company was registered only this year and hence cannot reply.
- 20-22. As above.
23. Replied by Silk and Art Silk Mills Association.

(14) Letter, dated the 29th July, 1938, from the Habib Silk Mills, Limited, 230, Reay Road, Bombay

Re: YOUR LETTER NO. 641 OF 27TH ULTIMO.

With reference to the above, enclosed herewith, please find our replies to questionnaire for silk and art silk goods manufacturers, with five spare copies. We regret that we have been so late in sending you the replies.

1. (a) Our concern is an unregistered firm.
- (b) The capital is rupee.
- (c) Partners are Indians.
- (d) Indians are represented on the Directorate.
2. The capacity of our mills is 100 looms for the manufacture of art silk cloth.
3. Our mills came in proper working order from 1st November, 1937, and the actual output for the period ending 30th June, 1938, is 640,000 yds. of art silk cloth.
4. The chief classes of goods manufactured in our mills are plain and dobby art silk cloth. 50 per cent. plain and 50 per cent. dobby cloth are produced.
5. (a) The consumption of art silk yarn since 1st November, 1937, is 88,000 lbs.
The yarn used, is of Japanese origin.
- (b) The imported yarn is better in strength and less in impurities.
6. (a) No silk yarn is used.
- (b) No mixture is used.
7. We generally buy yarn from Bombay market and therefore we are unaware of freight and of other charges.
8. A piece of 25 yards of art silk cloth weighs about 4 lbs. on an average.
9. Our prices are cheaper than those of imported articles.
10. No.
11. Winding, sizing, warping, drafting, weaving, cleaning, bleaching, finishing and folding.

12. The forms 1 and 2 have been duly filed in. The average price realised by us since 1st November, 1937, is 4 annas per yard.

13. According to our opinion, they are remunerating on account of local yarn and good efficiency.

14. We have employed 23,135 male and 9,742 female, since November, 1937. The total wages paid since November, 1937, are Rs. 50,000.

15. The foreign competition is keen in all Indian markets.

16. Railway freights are higher in India and therefore it is difficult to sell our products in up-country markets.

17. The value of our property on June 1st, 1938, was as follows:—

	Rs.
Plant machinery	1,25,000
Stock	75,000

18. We are not much experienced in this line.

19-20. Nil.

21. Nil. Year not yet completed.

22. (a) Interest Rs. 7,800.

(b) Depreciation Rs. 4,800.

(c) & (d) Nil.

23. They are not injurious to our qualities as their qualities are different from ours.

24. The Indian silk industry is adversely affected by smuggling as can be seen from reports appearing in the papers.

Form I.—Total expenditure incurred on the production of art silk goods,

1st November, 1937, to 30th June, 1938.

	Rs.
1. Raw material	80,000
2. Mill labour	50,000
3. Power and fuel	5,000
4. Current repairs and maintenance	833
5. Supervision and establishment	10,000
6. Miscellaneous, rent, municipal taxes, insurance, etc.	5,833
7. Other items	3,333
Total	1,54,999

Form II.—Works cost per yard of cloth.

1st November, 1937, to 30th June, 1938.

	As.	p.
1. Raw material	2	0
2. Mill labour	1	3
3. Power and fuel	0	1½
4. Current repairs and maintenance	0	6½
5. Supervision and establishment	0	3
6. Miscellaneous, rent, municipal taxes, insurance, etc.	0	1½
7. Other items	0	1
Total	3	10½

(15) Letter, dated the 30th July, 1938, from the Garden Silk Weaving Factory, Surat.

I have great pleasure to acknowledge your letter, dated the 27th June, in reply I beg to state that my manager is not here, so I am unable to fill up this form. I will send that form in this week which please note and oblige.

In reply to your letter No. 641, dated the 27th June, 1938, I have to reply as under, on behalf of the Garden Weaving Factory, Surat.

1. (a) An unregistered firm.

(b-d) Not necessary.

2. About 20,000 yds of cotton with art silk per month of 25 days.

			Art Silk with Cotton.	Spun Silk with Cotton.	Spun Silk.
			Yds.	Yds.	Yds.
3.	1933	. . .	Nil	39,925½	63,787
	1934	. . .	Nil	21,909½	43,731½
	1935	. . .	142,786	44,150½	72,803
	1936	. . .	189,157½	19,422½	Nil

4. At present we are engaged in preparing only art silk and cotton mixed goods 95 per cent. and other goods 5 per cent.

		Raw Silk.	Art Silk.	Spun Silk.	Staple Fibre.
		Rs.	Rs.	Rs.	Rs.
5.	1933-34	. Nil	4,000	45,000	Nil
	1934-35	. Nil	8,000	37,000	400
	1935-36	. Nil	10,000	5,000	550

The duty of As. 14 per lb. of spun silk was levied in the middle of 1934 to 1935. All goods made in Japan. In this year the consumption of spun silk was very little and the last year balance was being used, no new material was brought.

5. (a) We are mostly using spun silk of Japan as far superior to the spun silk which was made to a very small extent in Bombay at the Chhoi and the Sassoon Silk Mills at Bombay.

6. (a) We are not preparing cloth from raw silk, yet our estimate is that in one yard of raw silk cloth 27" width of Sateen made in Surat is about 8 to 10 tolas.

(b) We don't know.

7. We don't get goods direct from foreign countries but make our purchases from Bombay hence we cannot say anything about (a), (b), (c) and (d) for (e) and (f) nothing special except the railway charge from Bombay to Surat.

8. About 50 per cent. of art silk and 50 per cent. of cotton in the sarrees that we manufacture. We do not manufacture any other sort for the present.

9. Imported articles of art mixture are few but the price of the purely artificial silk cloth has gone very much down and hence we have to sell our goods at a very very low margin, and we are suffering a great deal from the cheapness of the imported products.

10. Our machinery is suitable only for spun silk, and cotton with art silk and not for purely raw silk articles.

11. We get the warps prepared finished, sized, and dressed, by piece workers, in the city, and for the process of weaving we put the warp on the machine and weave the same and all the after process of dyeing and finishing is carried on by hand process without the employment of any machine.

12. Details cannot be prepared so not supplied.

13. We firmly believed that Japan sells goods in India at a very low an unremunerative rate and that is the principal reason why the silk and art silk industry does not flourish in India, Japan sells artificial silk goods finished and dyed and well packed at about 1 anna to 1½ annas, per yard while the cost of material calculated at the c.i.f. price is about the same. Now it is a dilemma how Japan can sell its art silk and silk products almost at the cost of raw material at c.i.f. Bombay price, i.e., without duty.

It is nothing but dumping, and that dumping has been carried out with the help of the Government by the national organisation of that country. That matter is so very clear that if any body puts the cloth in a balance, he would be surprised when he calculates the cost of raw material which is used in the cloth.

This is the greatest obstacle in the way of the silk industry in India, and untill and unless all the fabrics containing reel silk or art silk be totally prevented from being imported in India. Silk industry cannot flourish this drastic remedy no regeneration of the Indian silk industry is ever possible.

14. The number of operative in our factory—

1933-34—105.

1934-35—100.

1935-36—90.

15. Bombay and Calcutta.

16. Nothing special.

17. (a) Nil.

(b) Land—Rs. 15,000.

(c) Building—Rs. 30,000.

(d) Plant and machinery—Rs. 80,000.

(e) Other assets—Rs. 10,000.

18. (1) Building the same, i.e., Rs. 30,000.

(2) Plant and machinery—Rs. 1,00,000.

19. This being a proprietary concern though depreciation account has been kept, nor any reserve fund created.

20-22. Nil.

23. Tuffettas imported from foreign countries as a very great injurious effect on the handloom weaving industry because tuffettas supply a very cheap and attractive material for sarrees and other garments for the lady dress.

24. Yes, we have no evidence but the fact remains the only remedy to stop. This is the total prohibition of any silk or art silk fabrics importation in India, from any owner or country.

(16) Letter, dated the 2nd August, 1938, from Shree Laxmi Silk Mills, Tulsi Pipe Road, Dadar, Bombay.

We are in due receipt of your letter No. 641, dated the 27th Juno, and thank you for the same.

In reply we are enclosing herewith our replies and statements required by you.

Hoping to be excused for the delay in replying.

1. (a) Private unregistered firm.

(b), (c) & (d) These questions do not apply to us.

2. 108 rayon cloth manufacturing looms with corresponding preparatory machinery and dyeing, bleaching and finishing plant for the manufacture of art silk goods, running single shift.

3. Mill commenced working on 14th December, 1938, and the total output of artificial silk goods till June, 1939, has been as under:—

Pieces—3,400. Yards—1,70,000. Lbs.—20,500.

4. Artificial silk piece goods (Takas) of shirting variety, plain and fancy.

5. (a) Artificial silk 22,050 lbs. of foreign origin imported from England, Japan, Italy, Dutch countries.

6. (a) & (b) We manufacture artificial silk goods and as such cannot give any idea as to real silk.

7. (To be answered by our Silk and Artificial Silk Mills Association).

8. 1.10 lbs. approximately.

9. (To be answered by our Silk and Artificial Silk Mills Association).

10. Yes.

11. (To be answered by our Silk and Artificial Silk Mills Association).

12. See annexures. Price realised As. 3-9 per yard.

13. (To be answered by our Silk and Artificial Silk Mills Association.)

14. 160 hands: Rs. 15,413-1-3 wages. We take unpaid apprentice to the tune of 6 per month.

15 & 16. (To be answered by the Silk and Artificial Silk Mills Association.)

17. Rs. 1,50,000 machinery and plant.

18. (To be answered by the Silk and Artificial Silk Mills Association).

19. As we have not completed one year of works, the account is not yet published.

20. Do not apply to us.

21. No balance sheet is struck since our financial year is not completed.

22. (a) 6,000: (b) Nil: (c) Rs. 4,81,500: (d) 9,000 approximately.

23 & 24. (To be answered by the Silk and Artificial Silk Mills Association.)

FORM I.

	Rs.	A.	P.
1. Raw material	17,500	0	0
2. Mill labour	15,417	1	3
3. Power and fuel	1,246	10	4
4. Current repairing and maintenance	3,205	7	0
5. Supervision and establishment	4,760	0	0
6. Miscellaneous, rent, municipal taxes, store, insurance, etc.	18,066	14	6
7. Other items: interest, depreciation, etc.	14,800	0	0.
Total	74,996	1	1

FORM II.—Cost per yard of cloth.

	As. P.
Raw material	1 8
Mill labour	1 5.42
Power and fuel	0 1.41
Current repair and maintenance	0 3.62
Supervision and establishment	0 5.38
Miscellaneous	1 8.40
Other items	1 4.68
Total	<u>7 0.91</u>

(17) Letter, dated the 2nd September, 1938, from the Bombay Silk Mills, Limited, Colaba Road, Bombay No. 5.

We beg to enclose herewith our replies to the questionnaire for manufacturers of silk and artificial silk goods.

It will be evident from the facts and figures given by us in our replies that the real-silk weaving industry has suffered more than the sericultural industry since the time that the last Tariff Board reported. Looking at the variation in the prices of imported raw silk and of imported silk piecegoods, it will be found that whenever there has been an increase in the price of imported raw silk, there has been no corresponding increase in the price of imported silk piecegoods. For example, while in the year 1937 there was a rise of 50 per cent. in the price of imported raw silk over the previous year, the rise in the value of imported silk piecegoods was only 14 per cent. Thus the silk manufacturers are put in the paradoxical position of having to pay a higher price for the raw material without getting a corresponding higher price for the manufactured goods. During all the years since 1934 that has been the unfortunate position of the silk weaving industry.

If the Board find that the Indian sericultural industry does stand in need at present of further protection and therefore the import duties on raw silk have to be increased, then the silk weaving industry must insist on a compensating increase in the import duties on the silk piecegoods. By compensating increase we mean that if the duty increased on raw silk is specific, and if for example the increase made is Re. 1 per lb., then the increase in the specific duty of silk piecegoods must be increased by at least Rs. 1-8 per lb.; because one pound of raw silk can give only about 11 ounces of cloth. Therefore an increase of Re. 1 per lb. of raw silk ultimately means an increase of Re. 1 on 11 ounces of cloth. Therefore it would be equal to Rs. 1-8 per lb.

Our submission therefore is that in order to give proper and lasting protection to the sericultural industry, the best way is to give more than enough protection to the silk weaving industry so that the sericultural industry may find a regular market and at the same time sufficient encouragement may be given to the development of silk weaving industry. Unless this is done, any protection granted to the sericultural industry will do more harm than good because if the weaving industry cannot survive, the sericultural industry must necessarily face extinction. We regret to find that among the witnesses examined by the Tariff Board in Bombay, there has not been a single representative of the silk weaving industry. We would therefore urge upon the Board the necessity of having the position of the silk weaving industry properly understood and discussed before arriving at any conclusion.

We shall be glad to submit any further information that the Board may require and send our representative for oral evidence at any time the Board may require.

Enclosure.

Replies to the questionnaire issued by the Tariff Board for silk and artificial silk goods manufacturers.

1. Our concern is a proprietary firm and all the partners in the firm are Indians. The management and the staff as well as the workers are all Indian and therefore our concern can claim to be an entirely Indian concern.

2. Originally our mill is equipped for the manufacture of real silk fabrics and ever since we started in 1932, we were using exclusively Kashmiri raw silk for 4 years until the year 1936. But because of various reasons with which we shall deal later on, we had to give up first, the exclusive use of Kashmiri silk and take to the use of Japanese and Chinese raw silk and later on also to the use of artificial silk.

Our equipment is such that we can use:—

- (i) Raw silk either Indian or foreign.
- (ii) Spun silk.
- (iii) Artificial silk.
- (iv) Staple fibre yarn, either simultaneously or separately for the manufacture of our fabrics without having to make any material changes in the equipment.

3. The following figures indicate the actual output of fabrics in our mills for all the years since 1933:—

1933-34		1934-35		1935-36		1936-37	
Yds.	Value.	Yds.	Value.	Yds.	Value.	Yds.	Value.
	Rs.		Rs.		Rs.		Rs.
23,934	63,954	35,939	76,776	23,539	41,479	46,568	51,513

4. The following are the chief classes of goods manufactured in our mills until the year 1937:—

	Per cent. of the total output.
Pure silk georgette	60
Pure silk crepe-de-chine	25
Pure silk Satin	5
Pure silk Plain	5
Other varieties	5

But since the year 1937, we had to change over to the manufacture of artificial silk goods and for the last one year we are exclusively manufacturing Artificial Silk Georgette. The following table shows our consumption of raw material since the year 1933:—

[illegible]

As we have already mentioned above, up to the year 1935-36 we were using entirely Kashmere raw silk. In the year 1936-37 we were using mostly Japanese raw silk and some artificial silk. While in the year 1937-38 we have been using artificial silk yarn manufactured in England, Italy, Japan and Belgium. The proportion of Japanese artificial silk yarn used by us is very small because the quality of Japanese artificial silk yarn is not so good as that of English and continental manufactures.

(b) We had to give up the use of Kashmere raw silk and take to Japanese raw silk for the following reasons:—

- (1) Comparatively much higher price of Kashmere raw silk as compared to that of Japanese without our being able to get a compensating increase in the price of fabrics manufactured out of such Kashmere silk. In short, as no preference or protection is given to our fabrics against Japanese imports, we were obliged to economise by using the cheapest raw material available.
- (2) The unavailability of regular supplies of white Kashmere silk which is essential to get the required whiteness in such superior classes of goods as we were manufacturing.
- (3) Absence of any regular dealers or stockists or Kashmere raw silk in Bombay. At the same time the Kashmere Government do not supply us directly and regularly at a reasonable price and very often directs us to various merchants who may have purchased large quantities at a time.

Even to-day if we are assured of regular supply of Kashmere raw silk in the required quantity at a price that would compete with Japanese and at the same time if we are assured of a protected market for our fabrics, in India we would even now be willing to revert to the manufacture of fabrics out of Kashmere raw silk.

6. (a) The quantity of raw material required per yard of cloth depends upon the quality and type of cloth to be turned out. But taking as an example 12 Momme Georgette the quantity of raw silk required per yard of finished material is 6½ tolas.

(b) As we do not manufacture the mixtures, we are not able to give any idea.

7. As we are mostly buying our raw material from the stockists or importers in the Bombay market, we do not know what is the f.o.b. price, but we give below the price per lb. of the raw material used by us delivered ex-godown, Bombay:—

Price of raw silk per lb.

	Japan.	Canton.	Kashmere.		
	Rs. A.	Rs. A.	Rs. A.	Rs. A.	
1933-34 .	6 0	5 0	7 8 to	6 12	Artificial Silk per lb.
1934-35 .	6 8	5 4	7 0 „	5 4	150 denier-As. 11.
1935-36 .	6 0	5 0	7 8 „	5 8	
1936-37 .	6 10	5 8	6 8 „	5 0	

8. In the case of particular artificial silk fabrics which we manufacture there is practically no difference between the weight of the raw material required and the weight of the finished article. This means that per every lb. of finished material, we require one full lb. of the raw material, viz., artificial silk yarn and on top of that we are to calculate 1 oz. more, in the cost of the raw material because of the quantity wasted in the process from winding up to weaving, which means that actually 17 ounces of artificial silk yarn are required for every 1 lb. of the finished fabric.

In the case of real silk however, we have to calculate the loss in weight of the raw material caused during the process of degumming. The following table gives the approximate loss percentage caused in the process of degumming:—

Japan white.	Japan yellow.	Kashmere white.	Kashmere yellow.	
Per cent.	Per cent.	Per cent.	Per cent.	
22	24	25	30	Lotus.
Kashmere Yellow	Inferior.			Shanghai.
Per cent.				Per cent.
33				25

It will therefore be seen that depending upon the raw material used, anything from 20 to 22 ounces of raw silk has to be used to give a finished pure silk fabric weighing 1 lb.

In calculating the value of Kashmere raw silk as compared to superior Japan white we have to take into consideration the variation in the loss in weight caused in the process of degumming. In other words the weaver or the weaving mill would be prepared to pay a higher price for Japanese raw silk (white) than for Kashmere yellow silk for the above mentioned reasons. This point deserves the special attention of the Board in forming any idea about the competitive price of imported silk.

9. The prices of our finished goods have got to compare at present favourably with those of imported article because unless we are able to sell at a price somewhat lower than that of similar imported article, it would be impossible for us to sell a single piece in the market. This does not mean however that we are in a position to sell our products at a price lower than that of the imported one. On the contrary we are definitely incurring a loss on the sales of our fabrics at present. But as the only alternative before us is to stop manufacturing, we have got to sell at a lower price.

10. Our machinery is suitable for the manufacture of fabrics from imported as well as the Indian raw silk.

11. Process of manufacture—

- (1) Raw materials received in hanks to be opened out.
- (2) Winding on to spools. *बन्धन*
- (3) Doubling.
- (4) Twisting or throwing.
- (5) Rewinding.
- (6) Warping.
- (7) Beaming.
- (8) Drawing-in.
- (9) Weaving.
- (10) Degumming.
- (11) Bleaching.
- (12) Dyeing.
- (13) Finishing.
- (14) Folding.
- (15) Packing.

In the case of artificial silk, however, the process of degumming is to be eliminated.

12. Instead of filling in forms I and II we are sending a separate statement showing the cost and price realised per yard.

13. We have very good reasons to believe that the prices at which silk goods imported from Japan are sold in the Indian market are definitely unremunerative and constitute plain and simple dumping. The statement

of our cost of production given along with this memorandum clearly indicates our cost of production. It will be found that our cost of production per piece of 12 momme is actually higher than the price at which Japanese 12 momme Georgetto is being sold in the Bombay market, namely Rs. 3-12 per momme less $4\frac{1}{2}$ per cent. discount bringing the nett price per piece to Rs. 35-13. It may however be argued that our cost of production may be higher because of some economic reason. But in any industry in our country, given the present conditions of labour, the only item which can raise the cost of production unduly is the overhead cost. Now, even if our overhead cost is reduced by 25 per cent., it will be seen that still our cost of production comes to Rs. 41-13-9 which would mean a loss to the manufacturer when sold at the same price as the Japanese stuff.

Over and above this obviously low and unremunerative price, when compared with our cost of production, we can cite as valid reasons the general and salient economic features of Japanese trade and industry. These factors detailed below enable Japan to dump her products in all the markets of the world at prices which defy any competition. These factors and features are:—

- (1) A depreciated currency which has been kept depreciated for years on end.
- (2) Very cheap labour, working without regard to all the international labour conventions.
- (3) State aid.
- (4) Low freight charges.

In the memorandum that we submitted to the Tariff Board at the time of the last enquiry we had stated "The danger which depreciated exchange constitutes is always first evident in the fall in the price and the fall in the price stimulated the imports by increasing the demand". This statement has been borne out by the increasing keenness of the competition and the falling prices with which Japanese products are assailing the Indian markets *in spite of the increase in the duties*. Although there has been no phenomenal rise in the quantity or value of the imports of silk goods from Japan, the competition is all the same keen. The reasons for this present paradox are that there has been an all round shrinkage in the volume of world trade, and therefore the volume of Japanese silk goods imported into India has naturally not shown any phenomenal rise. But the main point is that considering the present economic state of the world trade in general and India's trade in particular, the very continuance of Japanese imports at the present level constitutes a danger to the Indian silk industry.

Secondly, the values of Japanese imports do not show a big rise for the other simple reason that the c.i.f. prices of Japanese imports have been reduced considerably. For example, in 1933-34 the average value per yard of real silk piecegoods imported from Japan was Rs. 0-43 per yard, the same value in 1935-36 was Rs. 0-33 per yard, a fall in value of more than 23 per cent.

Finally, it is also interesting to note that the variation in the c.i.f. value per lb. of Japanese raw silk and the c.i.f. value of Japanese silk goods per yard has been disproportionate, as will be evident from the following figures:—

	Average value of raw silk imports per lb.	Variation over previous year	Average value of silk goods im- ports per yd.	Variation % over previous year.
	Rs. A.	Per cent.	A. P.	Per cent.
1933-34 . .	2 11	...	6 7	...
1934-35 . .	2 12	+1-3	5 6	-17
1935-36 . .	2 8	-10	5 7	+1-5
1936-37 . .	3 12	+50	6 $4\frac{1}{2}$	+14

14. The labour force employed by us since 1933 is shown below :—

	No. of hands employed (per day).	Annual wages bill. Rs.
1932-33	35	8,132
1933-34	40	10,722
1934-35	45	14,317
1935-36	45	12,221
1936-37	50	12,946

We employ only Indian labour and staff. We take up raw hands and they are trained gradually within a period ranging from one week to four weeks. The apprentice is first given manual work requiring no skill and is gradually taken to other types of work requiring more and more skill until he becomes a regular weaver.

15. As far as our industry is concerned, foreign competition which means Japanese only is keenest in the real silk piecegoods markets all over India. But in Kathiawar particularly the competition is such that we find it impossible for us to sell a single piece of our fabrics because the prices of Japanese silk there are ridiculously low when compared to the prices ruling in the Bombay market.

16. We have no instances before us as far as our goods are concerned to support the contention that our products are in a disadvantageous position compared with similar imported products as regards freight.

17. Block value of our property as at 31st October, 1937 :—

- (a) Leases and concessions—Nil.
- (b) Lands—Rented.
- (c) Buildings—Rented.
- (d) Plant and machinery—Rs. 40,000.
- (e) Other assets—Rs. 40,000.

18. The present day cost of a similar plant as our fitted up in the same way would be Rs. 55,000 to-day for plant and machinery only.

19. (a) Amounts written off since 1932—

	Rs.
1933-34	3,400
1934-35	3,300
1935-36	3,200
1936-37	3,100

(b) Nil.

20 & 21. Ours being a proprietary concern, these points do not arise.

22. (a) Interest on the whole capital (given by our partner as a loan) since 1932 to date—Rs. 14,000.

(b) Depreciation about Rs. 13,000 for 4 years.

(c) & (d) Nil.

23. We do not think that mill products can in any way be injurious to the interests of the handloom weavers because in the first place mill products and handloom products are each of a different class. Secondly, handloom weavers mostly working on some merchant's account or even when working on his own account, has not to pay any wages or other charges to outsiders and whatever he gets for his labour is his profit. Our own experience is that handloom products even when of the same class as the mill products are and can easily be sold at cheaper prices.

Handlooms have been in existence in India since ages and although the mill industry has been established in India for more than 50 years, handlooms have been going on all the same. We believe that if at any time, the handloom industry has to face extinction it will not be because of mill competition but it will be because of Japanese competition.

24. That smuggling has been going on has often been stated by Silk Merchants' Association of Bombay. Also the seizure of smuggled goods at various customs lines proves this beyond doubt.

Now, when it is a fact that smuggling has been going on, it goes without saying that smuggled goods must adversely affect genuine import business by the sale of smuggled goods at prices very much below the cost of regular duty-paid goods.

As we have stated above, the Indian silk manufacturers find it impossible to compete with the regularly and legally imported goods. Therefore the smuggled goods which sell at a price far below that of the legally imported goods, must needs injure the Indian Silk Industry.

FORMS.—I & II.—Statement of the cost of production of a 12-Momme Real Silk Georgette piece.

	Rs.
Cost of raw material per yard of 12 Momme Georgette	0.88
Cost of wages	0.44
Cost of power for transmission	0.07
Cost of stores and chemicals	0.12
Cost of rent and taxes	0.05
Cost of coal for process steam	0.03
Cost of insurance	0.01
General charges	0.07
Selling charges	0.10
Total	1.77 per yard.
	x 25
	44.25 per piece.

(18) Letter, dated the 29th October, 1938, from Messrs. Hansraj Sons, Proprietors, the Bombay Silk Mills, Bombay.

We beg to send you herewith complete notes giving full details on all the points which were raised during the course of our oral evidence.

We have particularly given all the calculations regarding the difference resulting from the variations in the loss percentage in degumming of Japanese and Kashmir silks. It will be found from the figures given by us on page 3 of the enclosed notes that although the price of Japanese and of Kashmir silks may be the same, the Japanese silk will be able to compete indirectly with the Kashmir silk because of the smaller loss percentage in degumming of Japanese silk. A difference of about 9 annas per lb. will be found as a result of this variation in the loss in degumming which means that to the weaver it is cheaper to use Japanese silk than to use Kashmir silk although both Kashmir and Japanese silks may be selling in the market at the same price. This point may particularly be given consideration in arriving at any conclusion regarding the competition between Japanese and indigenous silks.

We have also dealt in detail with the question of the difference in the cost per lb. of finished material resulting from a hypothetical increase in import duty on raw silk by Re. 1 per lb. All these figures and details are given on pages 4, 5, 6 and 7.

We have also given on page 8 the figures for the depreciation and interest charges which have not been included in the cost of production given by us on page 6 of the written memorandum submitted by us to the Board. The figures for managing agency commission have not been given by us because ours is a proprietary concern and therefore, we do not charge any amount on that account.

We hope all the information required by the Board has now been submitted by us. If, however, any further information or details are required we are at your disposal and shall be glad to supply the same at any time.

Notes for Tariff Board.

We beg to give below all the particulars and details regarding the points raised during the course of our oral evidence before the Board in Bombay on the 29th September, 1938.

We have not yet been able to get the figures of the variations in Japanese exchange rate. We, therefore, have not dealt with that question in these notes. However, we hope to be able to get all the figures regarding the exchange rates within one week and we shall send our notes to the Board within a week or so.

2.	<i>Yards per pound.</i>				
		<i>Georgette.</i>	<i>Crepe.</i>	<i>Satin.</i>	<i>Plain silk.</i>
6 Momme	. .	16	16	16	16
8 Momme	. .	13½	13½	13½	13½
10 Momme	. .	10½	10½	10½	10½
12 Momme	. .	8½	8½	8½	8½
14 Momme	. .	7½	7½	7½	7½

Compensatory duties.

During our oral evidence, we stressed the importance of arriving at the correct figures of the extra or compensatory protection which it would be necessary to give to the silk weaving industry to make up for the higher price resulting from any increase in the import duties on raw silk which the Board may find justifiable to recommend to Government.

We give below the figures of the relation between one pound of raw silk and one pound of finished silk cloth reduced to rupees, annas and pies. In the first place we would like to make it clear that the relation between the quantity of raw material required to produce one pound of finished cloth depends upon the amount of loss in the process of degumming. We have stated on page 2 of our written reply that while Japanese white silk loses only 22 per cent. in degumming, Kashmir yellow silk of the best quality loses at least 30 per cent. in degumming. Therefore, the quantity of Kashmir silk required to produce one pound finished cloth will be more than if Japanese raw silk was used. Reduced to rupees, annas and pies we arrive at the following figures.

Quantity of raw silk required to produce one pound of finished cloth.

<i>Yellow Kashmir silk required.</i>			<i>Yellow Japanese silk required.</i>		
<i>Quantity.</i>	<i>Value.</i>		<i>Quantity.</i>	<i>Value.</i>	
1 lb. 6-8 oz.	@ Rs. 5 12 0		1 lb. 5-3 oz.	@ Rs. 5 12 0	
	per lb. =			per lb. =	
	Rs. 8 3 0			Rs. 7 10 8	
Loss in degumming: 30%			Loss in degumming: 25%		

In the above figures the price of Japanese silk has been taken at Rs. 5-12 per lb., while price of the Kashmir also has been taken at Rs. 5-12 per lb. delivered *ex-godown* in Bombay duty paid. These prices represent the average of the prices ruling during last six months.

It will be found that apart from the fact that the average price of Japanese raw silk is lower than that of Kashmir silk, the difference in loss percentage in degumming alone enables Japan to compete more keenly with indigenous Kashmir silk. We have given these figures in order that the Board may be in a position to judge the competitive force of the imported raw silk as against the indigenous silk. These figures will also

help the Board in forming a correct appreciation of the extent to which an increase in duty on raw silk will necessitate a counter-weighting increase in the duty on imported silk fabrics. We, therefore, again enclose herewith the figures of the cost of production of three types of silk cloth namely—Georgette, Crepe and plain silk. But calculating the cost of the raw material at the current price of Rs. 5-8 per lb. of Japanese silk and another set of figures of the cost of production of cloth basing the cost of material on an increased value of raw material resulting from a hypothetical increase in the specific import duties on raw silk by Re. 1 per lb.

We are giving below the cost of production of three different types of silk fabrics, viz., 12 Momme Georgette, 14 Momme Crepe and 10 Momme plain silk fabrics. In calculating the cost of the raw material, we have taken the c.i.f. price of Japanese raw silk as a basis: in the first set of these figures, we have taken the c.i.f. price of Japanese raw silk as a basis; in the first set of these figures, we have ultimately added the amount of the duty paid on the raw material, at the present level of duties; in the second set of figures we have ultimately added the hypothetical amount of the duty which would be payable if an increase of Re. 1 per lb. in the specific duty or of 25 per cent. in the *ad valorem* duty were to be made. We have also given figures of the cost per lb. as well as per piece of the finished material.

First set.

The basis is the c.i.f. price viz., Rs. 3-12 per lb. when price ex-godown in Bombay, duty paid, is Rs. 5-8 per lb. of Japanese white D grade, New crop.

12 Momme Georgette.

	Rs.	A.	P.
Cost of the raw material without duty (4 lbs. at Rs. 3-12)	15	0	0
Labour charges . . .	11	0	0
Power charges . . .	1	12	0
Stores and chemicals . . .	3	0	0
Rents and taxes . . .	1	4	0
Coal for process steam . . .	0	12	0
Insurance charges . . .	0	4	0
General charges—clerical and supervisory staff . . .	1	12	0
Selling charges . . .	2	8	0
Total . . .	37	4	0
Amount of duty on raw material at 25 per cent. + As. 14 per lb.	7	0	0
Total . . .	44	4	0

Second set.

The basis is the c.i.f. price of Rs. 3-12 per lb. of Japanese white silk D grade, New crop.

12 Momme Georgette.

	Rs.	A.	P.
Cost of the raw material without duty (4 lbs. at Rs. 3-12)	15	0	0
Labour charges . . .	11	0	0
Power charges . . .	1	12	0
Stores and chemicals . . .	3	0	0
Rents and taxes . . .	1	4	0
Coal for process steam . . .	0	12	0
Insurance charges . . .	0	4	0
General charges—clerical and supervisory staff . . .	1	12	0
Selling charges . . .	2	8	0
Total . . .	37	4	0
Amount of duty at 25 per cent. + As. 14 + Re. 1 or 25 per cent.	11	0	0
Total . . .	48	4	0

The finished piece of 12 momme georgette would weigh 2 lbs. 13 oz. Therefore, at the existing rate of duty the addition in the cost of the finished fabric, per lb. comes about to Rs. 2-8, while the usual duty on raw silk per lb. is Rs. 1-10, as shown in first set of the figures of cost of production.

Regarding the second set of the figures of the cost of production it will be found that the total increase in cost per piece as a result of the increase

in the import duty of Re. 1 per lb. comes to Rs. 4. As mentioned above the weight of the finished piece is 2 lbs. and 13 oz., therefore, the increase in the cost per lb. of the finished material comes to about Rs. 1-8. (The actual increase as a direct result of the increased duty would be Rs. 1-7, and other incidental increase as a result of the increased duty may be conservatively estimated at As. 1 per lb. bringing the total increased cost to Rs. 1-8 per lb. of finished material) while the actual increase in the duty has been only Re. 1 per lb. of the raw silk.

The above mentioned figures prove beyond doubt that the compensatory duty required to be imposed on imports of silk piecegoods to cover the increased cost resulting from any increase in the duty on raw silk should be 50 per cent. more than the actual duty on raw silk. In our letter, dated the 2nd September, 1938, and addressed to the Secretary of the Board, we had mentioned on page 2 that if the duty on raw silk is increased by Re. 1 per lb. the compensatory duty on silk fabrics should be increased by Rs. 1-8 per lb. That statement of ours is now supported by figures quoted above.

We are also giving below the figures of cost of production of Crepe-de-chine 14 Momme and of plain silk 10 Momme on the same basis as the figures given above for Georgette 12 Momme.

First set.

14 Momme Crepe.

The basis is the c.i.f. price, viz., Rs. 3-12 per lb. when price ex-godown in Bombay, duty paid, is Rs. 5-8 per lb. of Japanese white D grade, New crop.

14 Momme Crepe.

	Rs.	A.	P.
Cost of the raw material without duty (4.75 lbs. at Rs. 3-12 per lb) . . .	17	13	0
Labour charges . . .	12	13	0
Power charges . . .	2	0	0
Stores and chemicals . . .	3	4	0
Rents and taxes . . .	1	4	0
Coal for process steam . . .	0	12	0
Insurance charges . . .	0	4	0
General charges—clerical and supervisory staff . . .	1	14	0
Selling charges . . .	2	12	0
	42	8	0
Amount of duty on raw material at 25 per cent. + As. 14 per lb. . .	11	9	10
Total . . .	54	1	10

Second set.

14 Momme Crepe.

The basis is the c.i.f. price of Rs. 3-12 per lb. of Japanese white silk D grade, New crop.

14 Momme Crepe.

	Rs.	A.	P.
Cost of the raw material without duty (4.75 lbs. at Rs. 3-12) . . .	17	13	0
Labour charges . . .	12	13	0
Power charges . . .	2	0	0
Stores and chemicals . . .	3	4	0
Rents and taxes . . .	1	4	0
Coal for process steam . . .	0	12	0
Insurance charges . . .	0	4	0
General charges—clerical and supervisory staff . . .	1	14	0
Selling charges . . .	2	12	0
	42	8	0
Amount of duty at 25 per cent. + As. 14 per lb. + Re. 1 per lb. . .	16	5	10
Total . . .	58	18	10

As a result of hypothetical increase in the duty on raw silk of Re. 1 per lb. the increase in the cost per piece amounts to Rs. 4-12 because the amount of raw material required is 4 lbs. 12 ozs. but the weight of the finished piece will be 3 lbs. 6 ozs. Therefore, the increase in the cost of finished material per lb. will be also Rs. 1-8 per lb. including other inci-

dental increases in the cost (though the actual increase in the cost of finished material per lb. will be Rs. 1-7).

First set.

10 Momme plain silk.

The basis is the c.i.f. price, viz., Rs. 3-12 per lb. when price ex-godown in Bombay, duty paid, is Rs. 5-8 per lb. of Japanese white D grade, New crop.

10 Momme plain silk.

Cost of the raw material without duty
(3 lbs. 6 ozs. at

	Rs.	A.	P.
Rs. 3-12 per lb.)	12	10	6
Labour charges	9	8	0
Power charges	1	10	0
Stores and chemicals	2	12	0
Rents and taxes	1	4	0
Coal for process steam	0	12	0
Insurance charges	0	4	0
General charges—clerical and supervisory staff	1	12	0
Selling charges	2	4	0
Total	32	12	6
Amount of duty on raw material at 25 per cent. + As. 14 per lb.	6	1	10½
Total	38	14	4½

Second set.

10 Momme plain silk.

The basis is the c.i.f. price, viz., Rs. 3-12 per lb. of Japanese white silk D grade, New crop.

10 Momme plain silk.

Cost of the raw material without duty
(3 lbs. 6 ozs. at

	Rs.	A.	P.
Rs. 3-12 per lb.)	12	10	6
Labour charges	9	8	0
Power charges	1	10	0
Stores and chemicals	2	12	0
Rents and taxes	1	4	0
Coal for process steam	0	12	0
Insurance charges	0	4	0
General charges—clerical and supervisory staff	1	12	0
Selling charges	2	4	0
Total	32	12	6
Amount of duty at 25 per cent. + As. 14 + Re. 1 per lb.	9	7	10½
Total	42	4	4½

The increase in the cost of this piece as a result of hypothetical increase in the duty of Re. 1 per lb. will amount to Rs. 3-6 per piece because 3 lbs. 6 ozs. of raw material are required but the increase in the cost of finished material per lb. as a result of such a hypothetical increase will be Rs. 1-8 per lb. including the incidental increases (though the actual increase per lb. of finished material will be Rs. 1-7) because the increased cost of Rs. 3-6 will be borne by 2 lbs. 6 ozs. of finished material.

Figures for raw silk consumption, production and wages for the year 1937-38 for our mills.

Raw material consumed.

Art silk 9,037 lbs. valued at Rs. 1,024.
Real silk 481 lbs. valued at Rs. 2,910.
Production 66,332 yards valued at Rs. 41,406.
Wages paid Rs. 10,800.

Figures for depreciation and interest charges.

	Rs.	A.
Depreciation charge per piece of 12 Momme Georgette	2	10
Interest charges per piece of 12 Momme Georgette	2	5

(19) Letter No. 38/815, dated the 4th June, 1938, from the Bengal Silk Mills Co., Ltd., 13, Arif Road, Uludaanga, Calcutta.

In reply to your circular letter, dated the 21st May we beg to say that ours is a spinning, throwing and weaving factory and not a filature.

We take this opportunity to remark that we hope the Tariff Board will consider the question of raising the duty on twisted yarn (silk yarn). The duty on twisted yarn should be levied on the same principle as on raw silk, i.e., on the actual weight and not *ad valorem*.

We feel sure other mill owners must have brought this point to your notice and if we can be of any assistance we are at your service.

(20) Letter, dated the 9th November, 1938, from Pravati Textile Mills, Limited, Bharat Bhawan, Chittaranjan Avenue Calcutta.

I am in receipt of a set of 'Questionnaire for silk and Artificial silk goods manufactures' and am extremely sorry that these questions are solely with the exception of one or two men for business concerns who have already started manufacture.

We for ourselves had registered this Company on the 24th day of April, 1936, and have received commencement certificate on the 6th July, 1936 and since then have sold shares worth Rs. 1,75,000. For the manufacture of Georgette, Crepe, etc., out of Artificial Silk Yarn we have purchased machineries worth Rs. 50,000 from the Nissei Co., Japan. We have also acquired fifty bighas of land at Panchati, 24-Parganas. The construction of our factory, etc., has been started and we hope to begin our manufacturing operation within five or six months to come.

Since we have not started production I am not in a position to answer the questions relating to production cost, etc., what I can best do, is to put down our estimated costs and this I have done to the best of my ability as will be found from the appended sheet of answers.

Answers to the 'Questionnaire' regarding Artificial Silk.

1. (a) Public Registered Company.
- (b) In India and the capital is in Rupee.
- (c) All the Share holders are Indian with the exception of two.
- (d) All the Directors are Indian.
2. The construction of the Mill Buildings, etc., is going on and we have not started production yet and will manufacture out of Artificial Silk Yarn.
4. We will produce Georgette, Crepe, etc.
5. (a) Artificial Silk yarn that we will use is of foreign origin, as those of Japan, Italy, England, etc.
- (b) We will have to use foreign yarn as artificial silk yarn is not manufactured in India.
6. (a) The quantity of artificial silk required per yard of cloth has been estimated to be 2/3 to 4/5 oz.
8. The wastage of yarn is estimated to be 5 per cent. to 10 per cent. during manufacture.
11. From Hank Winding--Spooling, Twisting, Warping, Sizing, Drawing in, Weaving, Dyeing, Bleaching, Finishing, etc.
17. When we will start manufacture the block value as per estimate will amount to Rs. 1,25,000 and we hope to start production in five or six months to come.

(21) *Replies to Questionnaire for Silk and Artificial Silk Goods Manufacturers, received from Messrs. P. R. Thimmappa and Sons, Dharmavaram, Anantapur District.*

1. Private unregistered concern.

2. We have about 40 handlooms. We manufacture pure silk saris.

3. We are manufacturing about 600 saris in a year since 1933.

4. We are manufacturing only pure silk saris.

5. (a) About 1,400 lbs. of raw silk in a year since 1933.

Nil.

Nil.

Nil.

We use Mysore State silk and about 5 per cent., Japan silk.

(b) With regard to evenness foreign silk is preferred: but colour of Mysore silk will be more shining and if Mysore silk is even and sold at the same rate, it will be preferred.

6. (b) We have no knowledge of mixtures.

7. As we are not direct importers we do not know anything about this. We purchase sometimes twisted Japan silk in Bangalore.

8. 52 tolas raw silk will be required for 1 lb. finished goods.

9. Our saris will find no comparison in imported goods; but local mill saris compete us.

10. We have no machinery.

11. We have only hand loom manufacturing.

14. The employers give silk to the workers on contract basis, i.e., a fixed sum will be given if one weaves a sari. Duration of weaving depends on capacity.

15. In big cities.

16. We have got grievances on native mill-made saris.

17. We are not having any mill.

19. Nothing.

20. It does not apply to us.

22. Does not arise.

23. Yes. Tuffetas by the mills are injurious. There should be some restriction for mill manufacturing.

24. Really where there is smuggling the cost becomes less. The people would naturally be attracted to that.

Forms I and II.

We are not having mill.

(22) *Letter No. I. A. 66 (a)/10068, dated the 9th August, 1938, from the Director of Industries, Bombay.*

I have the honour to enclose herein in original the letter No. K857/38, dated the 24th July, 1938, from Messrs. The Bengal Simla Silk and Tussore Mfg. Co., Surat, addressed to you and the members of the Tariff Board, for your favourable consideration.

Letter No. K857/38, dated the Surat, 24th July, 1938, from the Bengal Simla Silk and Tussore Mfg., Co.

During your recent visit to our Factory, we were directed to show how the imported Silk Fabrics, such as manufactured by us, come in competition with us. Accordingly, we are enclosing herewith a statement, to show a

typical example in Boskey, together with the samples of both the products—ours as well as imported one.

The imported quality is made in Japan, and it is being sold in the Bombay market at Rs. 37, less 4 per cent. trade discount for a piece of 29 inches \times 50 yards. We have to deduct about 3 per cent. more for Merchant's profit, etc., and hence the net price would be Rs. 34-6 for 50 yards, that is As. 11 per yard.

The cost price of similar product made here, works out to be As. 14-6 per yard, as shown in the enclosed statement. Although the quality manufactured here, is not upto that high level, as the one imported from Japan, its cost comes to As. 3-6 more per yard than that of the imported one.

Assuming As. 14 Sur-Tax, which is now charged on imported Spun Silk, be removed, the cost price of local-made Boskey would come to As. 12-9 per yard as under:—

	Rs. A. P.
Cost of 29 inches \times 30 yards Boskey, as per enclosed statement	27 3 0
Less—the difference at As. 14 per lb., on $3\frac{1}{2}$ lbs. of Spun silk used in the manufacture of the said piece	3 4 6
Total	23 14 6
for 30 yards.	

which comes to As. 12-9 per yard.

Even in that case, the would-be cost price is more by As. 1-9 per yard, than the price of the imported Boskey from Japan.

Similar is the case with other Silk Fabrics.

It is our opinion that if the poor Weavers are to be helped, the duty on imported Silk should be totally removed, and the duty on imported Silk piece-goods should be increased to such a level as would prohibit the easy import of such Fabrics.

Statement.

The cost price for the enclosed quality of local-made Boskey, works out as under for a piece of 29 inches \times 30 yards:—

The Warp is 2/210 Japan Spun Silk, and the market rate for the same is Rs. 5-4 per lb.

The weft is 1/72 Japan Spun Silk, and the market rate for the same is Rs. 4-8 per lb.

The approximate weight of Warp is $2\frac{1}{2}$ lbs.

The approximate weight of Weft is $1\frac{1}{2}$ lbs.

	Rs. A. P.
The cost of Warp $2\frac{1}{2}$ lbs. at Rs. 5-4	11 13 0
The cost of Weft $1\frac{1}{2}$ lbs. at Rs. 4-8	6 12 0
Winding and Warping charges	0 10 0
Sizing and drawing charges	0 12 0
Weaving charges including standing charges of the power-loom factory	5 0 0
Washing and finishing charges	1 8 0
Packing, etc.	0 4 0
Sundries	0 8 0
Total	27 3 0

Rs. 27-3 for 30 yards, i.e., As. 14-6 per yard.

(23) *Letter No. C. 1—412/37-38, dated the 22nd July, 1938, from the Director of Industries and Commerce in Mysore, Bangalore.*

I have the honour to forward herewith, in original, replies to the above questionnaire received from the following* concerns engaged in the manufacture of silk goods, etc., in the State.

- *1. Messrs. Patel Hanumegowada & Co., Sri Ranganatha Weaving Factory, Doddaballapur.
2. Messrs. Burukunte Eswarappa & Sons, Doddaballapur.
3. Messrs. G. Gopala Setty & Bros., Sri Rama Villas Silk Weaving Works, Doddaballapur.
4. Messrs. H. V. Keshavamurthi & Bros., Silk Cloth Merchants & Commission Agents, Doddaballapur.
5. Messrs. Sri Ram Silk Throwing Factory, Bangalore City.
6. The Ananda Industries, Silk Cloth Manufacturers, Vizveswara-puram, Bangalore City.
7. Messrs. Sri Rama Weaving Shed, Bangalore City.

Enclosure (1).

Replies from Messrs. Patel Hanumegowada & Co., Sri Ranganatha Weaving Factory, Doddaballapur:—

1. (a) Our concern is an unregistered, private partnership firm.
- (b) Nil.
- (c) Nil.
- (d) Nil.

2. We own at present eight power-loom and have been manufacturing on spun-silk sarees, the capacity of each loom being 2 sarees (each saree being 9 yards long and 44-45" wide) per working day of eight hours. On this basis, the total capacity of our Mill is four hundred sarees per 25 working days in a month of 4,800 sarees per 300 working days in a year.

3. Our factory commenced working on the 1st December, 1934. The actual output of spun-silk sarees in our factory during each year since 1935 is as noted hereunder:—

Year.	Number of sarees produced.	Quantity in		Value in Rs.
		Yards.	lbs.	
1935	1,350	12,150	1,687	12,150
	(Output on three looms only).			
1936	3,000	27,000	3,750	25,500
	(Output on five looms only).			
1937	4,800	43,200	6,000	40,800
	(Output on eight looms only).			
1938	2,400	21,600	3,000	20,400

(Six months only). (Output on eight looms).

4. Only spun-silk sarees are being manufactured in our Mill as stated above.

5. (a) Of the raw materials referred to under this item, only spun-silk is being consumed in our Mill. The following figures represent the annual consumption of the same in our Mill during each year from 1935:—

Year.	Quantity consumed. in lbs.
1935	1,737
1936	3,862
1937	6,180
1938 (6 months)	3,090

The above raw material is of foreign origin, manufactured in Japan.

(b) We have been using imported spun-silk only since indigenous spun-silk is not available.

6. (a) We estimate that 5½ tolas of spun-silk would be required for manufacturing one yard of cloth 45" wide.

(b) We have not been manufacturing silk mixtures at our Mill.

7. Spun-silk and gold lace are the raw materials which we have been using in our Mill. We obtain spun-silk (XXX brand) through the wholesale importers in Bombay and gold lace (Swan brand-Powder quality) from the manufacturers at Surat as well as from the merchants at Bangalore. The following is the cost per lb., delivered at our Mill of the above raw materials:—

I. Spun-silk.

	Cost per lb.			
	1935.	1936.	1937.	1938 (up to end of June.)
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
(i) Price f.o.r., Bombay at Rs. 495 per bale of 110 lbs.	4 8 0	4 8 0	4 8 0	4 8 0
(ii) Ry. freight from Bombay to Doddballapur at Rs. 3-8 per bale of 110 lbs.	0 0 6½	0 0 6½	0 0 6½	0 0 6½
(iii) Transport charges from Doddballapur Railway Station to the factory at As. 3 per bale of 110 lbs.	0 0 ½	0 0 ½	0 0 ½	0 0 ½
(iv) Other charges as octroi, etc., excluding dyeing charges	0 1 1½	0 1 1½	0 1 1½	0 1 1½
Total	4 9 8	4 9 8	4 9 8	4 9 8

II. Gold Lacc—(Import from Surat.)

	Cost per lb. '			
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
(i) Price f.o.r., Surat at Rs. 13-8 per marc of 21 tolas .	25 11 5	25 11 5	25 11 5	25 11 5
(ii) Railway freight from Surat to Doddaballapur at Rs. 2 per 40 marcs .	0 1 6 $\frac{2}{7}$	0 1 6 $\frac{2}{7}$	0 1 6 $\frac{2}{7}$	0 1 6 $\frac{2}{7}$
(iii) Other charges .	0 0 $\frac{2}{7}$	0 0 $\frac{2}{7}$	0 0 $\frac{2}{7}$	0 0 $\frac{2}{7}$
Total .	<u>25 13 0</u>	<u>25 13 0</u>	<u>25 13 0</u>	<u>25 13 0</u>

8. Forty-one and one-fifth (41 $\frac{1}{5}$) tolas of spun-silk are required per lb. of the finished article.

9. We have no information on this point.

10. Our machinery is suitable for the manufacture of silk goods from filature twisted silk-local or imported.

11. Spun-silk is first dyed and then wound on to warpers' Bobbins. Then it is wound on to warpers' drum to the required breadth and from the drum to the warpers' Beam. The whole warp is then drawn through the healds and reed and mounted on to loom. These are the processes involved in the preparation of yarn intended for warp. The yarn intended for weft is wound on to pirn Bobbins. The yarn thus prepared for warp and weft is then finally woven into cloth.

12. Forms I and II annexed to the questionnaire have been filled up and enclosed. The following are the average net prices realised *ex-factory* for the spun-silk sarees manufactured in our Mill during each year from 1935:—

Year.	Price realised per saree.
	(9 yds. long and 44-45" wide).
	Rs. A.
1935	9 0
1936	8 8
1937	8 6
1938 (upto end of June)	8 6

13. We have no information on this point.

14. Particulars showing the average daily number of persons employed at our Mill, and the total annual wages bill are noted below:—

Year.	Number of persons employed.	Annual wages Bill.
1935	15	About Rs. 1,600
1936	18	
1937	20	
1938	20	

We have not provided any facilities for training apprentices for our Mill.

15. We have no information regarding this.

16. We have no information regarding this.

17. Particulars of the Block value of our property as it stood in our books at the end of the last complete year. (Year ending June, 1938), are given below:—

	Rs.
(a) Leases and concessions	Nil.
(b) Lands	Nil.
(c) Buildings	Nil.
(d) Plant and Machinery	7,500
(e) Other assets	500
Total	8,000

18. We estimate that at the present day Rs. 3,000 for buildings and Rs. 8,000 for plant and machinery would be required for erecting a mill, having the same capacity as ours.

19. (a) Amount written off for depreciation upto end of June, 1937, is Rs. 1,506-12.

(b) Amount of reserve fund created from surplus profit and other sources. Nil.

20. Our working capital is Rs. 10,000. As our concern is not a joint stock concern we are unable to furnish further details.

21. Nil.

22. Details of our expenditure under the several heads referred to against this item are given below:—

	Rs. a.
(a) Interest on working capital	300 0 per year.
(b) Depreciation (upto end of June, 1937)	1,506 12
(c) Head Office expenses and Agents' Commission	600 0 per year.
(d) Dividends on share capital and interest on loans	Nil.

23. No.

24. We have no information on this point.

Form I.—Total expenditure incurred on the production of silk goods.

	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
					Rs. a. p.
1. Raw material	32,053 12 0
2. Mill labour	1,200 0 0
3. Power and fuel	480 0 0
4. Current repairs and maintenance.	180 0 0
5. Supervision and establishment.	1,200 0 0
6. Miscellaneous, rent, Municipal taxes, insurance.	180 0 0
7. Other items (interest on working capital dyeing charges, etc.)	2,225 12 0
Total	37,518 12 0

N.B.—There has been no variation in expenditure since the commencement of operations at our Mill.

FORM II.—Works cost per yard of cloth.

—	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
					As. p.
1. Raw material	11 9½
2. Mill Labour	0 6
3. Power and fuel	0 2½
4. Current repairs and maintenance.	0 1½
5. Supervision and establishment.	0 6
6. Miscellaneous, rent, Municipal taxes, insurance, etc.	0 0½
7. Other items Dyeing charges, depreciation etc.)	0 10½
Total	13 11½

N.B.—There has been no variation in our works cost since the commencement of operations at our Mill.

Enclosure (2).

Replies from Messrs. Burukunte Eswarappa and Sons, Doddaballapur.

1. (a) Our concern is a private, unregistered, proprietary firm.
- (b) Nil.
- (c) Nil.
- (d) Nil.

2. We own two power looms. The total capacity of our Mill as at present equipped for the manufacture of spun silk goods is six sarees (each sari being 9 yards long and 44" to 45" wide weighing about 50 (tolas) per working day of ten hours.

3. Our Factory was established in March, 1935 and the average annual output in our Factory (of spun-silk sarees) is about 1,000 one thousand valued at about rupees 8,000.

4. Only spun-silk sarees are being manufactured in our concern.

5. (a) Our average consumption of spun-silk is 1,281½ lbs. per year. The details of consumption during each year since the commencement of work in our concern are not available since we have not maintained accounts. This silk is of foreign origin and is manufactured in Japan.

(b) We are using only imported spun silk as indigenuous silk of this variety is not available.

6. (a) estimate that 5·5/7 tolas of spun silk would be required for manufacturing one yard of the finished article.

(b) We have not been manufacturing any silk mixtures.

7. The raw materials used in our concern are spun silk and gold lace. We obtain these raw materials through the wholesale dealers in Bangalore.

The following is the cost per pound delivered at our concern of the above raw materials:—

Cost per pound.

	1935.	1936.	1937.	1938. (up to end of June)
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Spun silk .	4 4 0	4 8 0	4 8 0	5 0 0
Gold lace .	30 0 0	30 0 0	28 0 0	28 0 0

Further details are not available.

8. The weight of the spun silk required per pound of the finished articles would be 41 tolas.

9. We have no information regarding this.

10. Yes.

11. We purchase spun silk and get it dyed by the local professional men. This silk will be wound in warp bobbins of required number, then the bobbins will be put to bobbin stand and threads from the bobbins will be taken on warp drum to the required length and breadth. After this is done, the warp is taken to the warp beam. Then the warp is attached to the healds and reeds to the required breadth. Afterwards when every thing like bordering, etc., is over, the process of weaving will be begun. The yarn or silk is wound on west pins for weaving the warp.

12. Forms I and II attached to the questionnaire have been filled up and enclosed, the following are the average net prices realised ex-factory for the spun silk saroes manufactured in our mill during each year from 1935:—

Year.	Price per saroe.
1935	10 0
1936	9 0
1937	8 8
1938 (upto end of June)	8 0

13. We have no information regarding this.

14. Since the commencement of our operations we have been employing daily on an average four workmen and our total annual wages bill is Rs. 324. We have not provided any facilities for training Indian apprentices in our concern.

15 & 16. We have no information.

17. The block value of our property as it stood in our books at the end of last complete year is as follows:—

	Rs.
(a) Leases and concessions	Nil.
(b) Lands	2,000
(c) Buildings	1,500
(d) Plant and Machinery	1,300
(e) Other assets	Nil.

...

18. We estimate that for erecting a mill having the same capacity as ours Rs. 2,000 for buildings and Rs. 1,500 for plant and machinery would be required at the present day.

19. We regret we are unable to furnish these details.

20. Nil.

21. We have no copies of balance sheets since we do not prepare the same.

22. These details are not available with us.

23. No.

24. We have no information.

FORM I.—Total expenditure incurred on the production of silk goods.

	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
			Rs. a.	Rs. a.	Rs. a.
1. Raw material	6,276 0	6,486 0	7,182 0
2. Mill labour	324 0	324 0	324 0
3. Power and fuel	62 8	62 8	62 8
4. Current repairs and Maintenance	50 0	50 0	50 0
5. Supervision and establishment
6. Miscellaneous, rent Municipal taxes, insurance, etc.	10 0	10 0	10 0
7. Other items
Total	6,722 8	6,932 8	7,628 8

FORM II.—Works cost per yard of cloth..

	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
					As. p.
1. Raw material	11 0
2. Mill labour	0 7
3. Power and fuel	0 1½
4. Current repairs and maintenance	0 1½
5. Supervision and establishment
6. Miscellaneous, rent, Municipal taxes, insurance, etc.	0 ½
7. Other items
Total	12 6½

N.B.—There has been no great variation in our works cost since the commencement of operation in our concern.

Enclosure (3).

Replies furnished by Messrs. Gopala Setty and Bros., Sri Rama Vilas Silk Weaving Works Doddballapur.

1. (a) Our concern is an unregistered private firm.

2. We own at present 6 power looms and we have been manufacturing only Filature Silk saris. The capacity of each loom—one sari, each sari being 9 yards long and 45 inches width, for working day of 8 hours. On

this basis the total capacity of 6 looms per 25 working days 20 series in a month, excluding periodical stoppage. (240 series of 2,160 yards per year).

3. Our factory commenced working on the December 1st, 1934. The actual output of filature silk series in our Factory during each year since 1935 is noted as hereunder:—

Remarks.	Year.	Number of series.	Yards.	Lbs.	Value.
					Rs.
2-ooms . .	1935	480	4,320	480	8,640
4-ooms . .	1936	960	8,640	960	16,800
5-ooms . .	1937	1,200	10,800	1,200	20,700
6-ooms (for 6 months) .	1938	740	6,660	760	11,840

4. Only Filature silk series are being manufactured in our factory.

5. (a) Of the several raw materials required to under this item filature is the only raw material, consumed in our factory. The following figure represents the annual consumption of the same in our factory during each year from 1935:—

Year.	Quantity consumed in lbs.
1935	666
1936	1,332
1937	1,664
1938 (for 6 months) .	1,026

Half of the above mentioned quantity of Raw Silk imported from Japan and the remaining half imported from Kashmir.

(b) As the silk imported from Japan is more uniform than that of Kashmir silk, we use Japan silk for warp.

6. (a) The estimate that $6\frac{1}{4}$ tolas of raw silk would be required for manufacturing one yard of cloth 45" width.

(b) We have not been manufacturing silk mixtures.

7. Kashmir and Japan Filature silk and gold lace are the raw materials which are being used in our Factory. We obtain raw silk through the merchant in Bangalore, and the gold lace from the agents in Bangalore. The following is the cost per lb. delivered at our factory of the above raw materials:—

	1935.	1936.	1937.	1938.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Organzino . .	7 0 6	7 6 6	8 0 6	7 0 6
Tram . .	6 0 6	6 6 6	7 0 6	6 0 6
Gold lace . .	41 15 0	41 15 0	41 15 0	41 15 0

8. $56\frac{1}{4}$ tolas of raw silk is required per lb. of finished article.

9. We have no information on this point.

10. Our machinery is suitable for manufacture of silk goods out of any kind of filature silk, except China filature.

11. Raw silk intended for warp first bleached and dyed into required threads and then the silk is wound on to warpers' bobbins. The third process is to wind the silk from bobbins on to warping drum and then on to warpers beam. After completion of the warp the whole warp ends on drum through the heddles and reeds. Lastly it is mounted on the loom. The raw silk intended for weft is first bleached and dyed and then wound on to bobbins, and from the bobbins on to the pirn bobbins. The silk thus prepared for warp and weft is then finally woven into cloth.

12. Forms I and II annexed to the questionnaire have been filled up and enclosed. The following are the net prices realized *ex-factory* for the silk series manufactured in our factory during each year 1935.

Price realized per saree of 9 yards long and 45 inches width.

Year.	Rs. A.
1935	18 0
1936	17 8
1937	17 4
1938	16 0

13. We have no information about this point.

14. Particulars showing the average daily no. of persons employed in our factory since the commencement of operation and the total wages bill are noted below:—

Year.	Persons.	Rs.
1935	6	} About 3,000
1936	8	
1937	10	
1938	12	

15 & 16. We have no information.

17. (a) Leases and concession	Nil
(b) Lands	Nil.
(c) Buildings	Nil.
(d) Plant and machinery	4,200

looms, and dobies, warping machine electric motors, winding machine.

(e) Other assets Rs. 100 4,300

18. We estimate that the building Rs. 5,000 and the plant and machinery Rs. 4,300 would be required for erecting a mill having the same capacity as our own.

19. Amount written off for depreciation upto the end of June, 1938 Rs. 300.

19. (b) Nil.

20 & 21. Nil.

22. (a) Interest on working capital—Nil.

(b) Depreciation Rs. 172 per year.

(c) & (d) Nil.

23. No.

24. We have no information in this point.

FORM I.—Total expenditure incurred on the production of silk goods.

—	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
				Rs.	
1. Raw material	15,750	
2. Mill labour	2,400	
3. Power and fuel	300	
4. Current repairs and Maintenance.	120	
5. Supervision and establishment.	300	
6. Miscellaneous, rent, Municipal taxes, insurance, etc. }	330	
7. Other items . . . }					
Total	19,200	

FORM II.—Works cost per yard of cloth.

—	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
				Rs. a. p.	
1. Raw material	1 7 4	
2. Mill labour	0 3 5	
3. Power and fuel	0 0 5½	
4. Current repairs and maintenance.	0 0 2½	
5. Supervision and establishment.	0 0 5½	
6. Miscellaneous, rent, Municipal taxes, insurance, etc. }	0 0 6	
7. Other items. }					
Total	1 12 3½	

Enclosure (4).

H. V. Kesavamurty & Bros., Silk cloth Merchants and Commission Agents, Dodballapur.

1. (a) to (d) Our concern is purely unregistered firm.
2. We are running at present four looms: We are manufacturing both spun silk and filature series: The capacity of each loom is 20 yards of 44" width per working day of ten hours (spun silk), and filature is 7 yards of 45" width per loom per day.
3. Our factory produced only 300 days each year.
 1936—660 spun silk sarees of 9 yards per year (one loom) say about 847 lbs. output 5,940 yards.
 1937—1,300 sarees of 9 yards per year (spun-silk) (for two looms).
 2,100 yards of filature silk sarees per year for two looms—about 250 lbs.
 1938—1,302 sarees spun silk sarees.
 2,200 yards filature.
4. Spun silk (210/2) sarees:—1,302 sarees of 9 yards each. Filature silk sarees: 2,200 yards.

	1937.	1938.
	lbs.	lbs.
5. (a) Spun silk	1,700	1,712
Filature silk	234	250

Spun silk is of foreign origin—mostly from Japan and same marks from China:

Filature silk is of foreign origin and indigenous:

We get filature silk from Japan.

We get filature silk from Kashmir Silk.

We got filature silk from Mysore silk.

(b) We prefer spun silk of foreign makes as we do not get indigenous silk to test and give results. We prefer filature silk, Kashmir and Mysore silk in place of foreign-makes as they are durable.

6. (a) Spun silk per yard. It varies from 5 tolas to 6 tolas per yard as the ease of the texture of the cloth we manufacture.

(b) We are not manufacturing mixtures.

7. Spun silk and filature we are using in our mill. Spun silk is purchased at Bombay from wholesale merchants, and Kashmir and Mysore silk filature purchased at Bangalore.

Cost per lb.

	1935.	1936.	1937.	1938.
	Rs. a.	Rs. a.	Rs. a.	Rs. a.
(a)—	4 8	4 10	5 0 to 5 8	5 2 to 5 8
(b) Railway freight by goods train— Bombay to Dodballapur per 110 lbs. .	5 6	4 4	4 4	4 4
By passenger train	10 12	8 8	9 0	9 8
(c) From Railway Station to Mill area per 110 lbs.	0 6	0 4	0 4	0 4
(d) Octroi. Per 110 lbs. three pies per rupees .	..	..	8 0	8 8

8. Spun silk required per 1 lb. of finished article is 41 tolas filatures required per 1 lb. of finished article is 47½ tolas.

9. Spun silk sarrees 9 yards in good plain design imported from—

	Rs. A.	Rs. A.
Japan costs	9 12	or 9 8
Our rates costs	8 8	or 8 12

Our rate.—Filature goods of 45" at Re. 1-10 per yard: (Kashmir silk).

Japan rate	} 27" width at Rs. 1-2 per yard.
China silk usod	

10. Our looms produce both filature and spun silk. They are more of cotton looms than silk looms. We prefer French looms for filature silk but they are costly and hence we are using German or English looms.

11. Silk is first dyed and then silk is wound on to warpers bobbins and warped and then taken to loom.

Year.	Price per 9 yds. Filature plain.	Price per 9 yds. saree spun silk.
	Rs. A.	Rs. A.
1935	17 8	9 12
1936	17 0	9 0
1937	16 8	8 0
1938	15 0	8 6

13. We fear only Japanese competition as we hear that one woman is capable of looking after 6 looms whereas in India one man can look after one loom only. It is because of the efficiency and easy moments of the looms they prepare. Hence, their cost of production may be little less than what we could do.

Year.	Members	Rs.
14. 1936	2	240
1937	9	1,200
1938	10	1,215

15 & 16. No information on this point.

17. (c) Rs. 1,200.

(d) Rs. 3,000.

18. That is the minimum we require to run 4 looms: Refer question 17 C and D.

19. (a) For capital of Rs. 3,000 machines and plants; we have to deduct at Rs. 5 per cent., i.e., Rs. 150 per year.

(b) Nil.

20. (a) to (c) Nil.

21. Nil.

22. (a) Interest of Rs. 100 per year.

(b) Depreciation at 5 per cent.

(c) Rs. 96 per year.

(d) Nil.

23. Yes, injurious in the interest of the handloom weavers. The cost of production in power loom will be less than handloom hence power loom products are sold at a cheaper price than hand-made sarees.

Power looms owner can execute the orders at an early date, and goods produced by looms give a fine finish. Hence what now loom weavers say is correct.

24. No evidence at our disposal.

FORM I.—*Total expenditure incurred on the production of silk goods.*

—	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
				Rs.	Rs.
1. Raw material	11,000	11,500
2. Mill labour	1,200	1,215
3. Power and fuel . . .	}	300	300
4. Current repairs and Maintenance.					
5. Supervision and establishment.	200	200
6. Miscellaneous, rent, Municipal taxes, insurance, etc.
7. Other items	700	700
Total	13,400	13,915

FORM II.—*Works cost per yard of cloth.*

—	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
				As. p.	
1. Raw material	11 9	..
2. Mill labour	0 5	..
3. Power and fuel . . .	}	0 3	..
4. Current repairs and maintenance.					
5. Supervision and establishment.	0 4	..
6. Miscellaneous, rent, Municipal taxes, insurance, etc.	}	1 0	..
7. Other items . . .					
Total	13 9	..

Enclosure (5).

(Sriram Silk Throwing Factory, Bangalore).

1. Private unregistered firm.
2. About 36,000 yards of pure silk cloth or about 60,000 yards of silk and cotton mixture cloth, per year.
3. About 24,000 yards of pure silk cloth and 1,200 yards of silk and cotton mixture cloth, per year.
4. Silk sarees, khamams, and plain pieces. Silk and cotton mixture sarees and khamams.
5. (a) 4,000 lbs. of raw silk and 600 lbs. of cotton yarn.
(b) Local silk has the advantage of strength, elasticity, and lustre but the foreign silk is more uniform and easier to handle on machinery. The price factor is decidedly in favour of foreign silk.
6. (a) About 5.3 tolas per yard of 45" width.
(b) About 50 per cent.
7. Nil.
8. Average weight of one yard of pure silk cloth of 45" width is 4 tolas. But as this weight is for dyed material, the weight of raw silk will be 5.3 tolas.
9. There is no importation of goods similar to our manufacture.
10. Yes.
11. Organzine and tram are supplied from our throwing plant. These are dyed to various shades in our dye house and then wound on flanged bobbins. The organzine bobbins are taken to the warping frame and weavers warp are prepared and mounted on looms. The tram bobbins are taken to prepare pirns for shuttles. The cloth is woven to design and colour, cleaned, priced and put on market for sale.
12. Prices of our products are always calculated on the weight of the finished goods. Our average realisation is Rs. 8 per tola weight, less 3½ per cent. cash discount for retail sales and 6½ per cent. to 12 per cent. for the trade.
13. Nil.
14. About 75; weavers, warpers, and helpers.
- 15 & 16. Nil.
17. About Rs. 12,000.
18. 1. About Rs. 15,000. 2. About Rs. 15,000.
- 19 to 24. Nil.

FORM I.—Total expenditure incurred on the production of silk goods.

	Rs.
1. Raw material	48,000
2. Mill labour	7,500
3. Power and fuel	1,000
4. Repairs, etc.	500
5. Management	3,000
6. Tax, rent, etc.	1,200
7. Other items	200
Total	61,400

FORM II.—Works cost per yard of cloth.

	Rs.	a.	p.
1. Raw material	1	5	4
2. Mill labour	0	3	4
3. Power and fuel	0	0	5.3
4. Repairs, etc.	0	0	2.65
5. Management	0	1	3.9
6. Tax, rent, etc.	0	0	6.36
7. Other items	0	0	1.06
	1	11	3.27 or 1 11 6

Enclosure (6).

Replies furnished by the Ananda Industries, Bangalore City.

1. (a) Unregistered firm.
2. 20,000 yards of pure silk goods only. Value Rs. 30,000 per annum. About 3,000 lbs. of silk used per year.
3. Nil.
4. Only silk, sarrees.
5. (a) About 1,800 lbs. per year from last three years.
Kashmir and Japanese silks.
- (b) Imported silk better in weaving quality though poor in strength and lustre and as such preferred.
6. (a) About 5 tolas per yard of 45" width.
7. Average cost at factory Rs. 7-12 per lb. furnished raw material.
8. Bleached silk 1 lb. and 1 tola per lb. of finished goods.
9. Our goods 25 to 40 per cent. higher than imported goods.
10. Yes.
- 11 & 12. Nil.
13. The difference between the price of imported silk cloths and silk yarns is so small, that it is obvious that there is little margin.
14. 20 persons. We invariably have training facilities for at least 6 apprentices. We are usually absorbed after 6 months wages bill Rs. 2,500.
15. In almost all the market, but very acute at ports.
16. No information.
17. (c) Rs. 10,000.
(d) Rs. 10,000.
(e) Rs. 5,000.
18. No information.
19. (a) Rs. 500 per annum.
(b) Nil.
- 20 & 21. Nil.
22. (a) Rs. 300 per annum. (b) Rs. 500 per annum. (c) Rs. 1,200 per annum. (d) Nil.
23. We think that in the pure silk line the mills are not competing with handloom weavers.
24. The little difference between the silk yarn prices of imported yarn and imported finished goods suggest that finished goods are being smuggled into India.

The Ananda Industries, Bangalore City.

Item 11. Process of manufacture—

Raw finished silk is bought and bleached and dyed. The skins are wound on to fibre ended bobbins by winding machines. The yarn is made

into warps of 128 yards length on a small scale warping machine driven by power. The warper beams are then put on power-loom fitted with dobby for border-work. The sarree taken out are ironed by electric irons and folded up and marketed. Some of the sarrees are bordered with lace work.

FORM I.

—	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
				Rs.	
1. Raw material	17,398	
2. Mill labour	2,200	
3. Power and fuel	300	
4. Current repairs and maintenance.	600	
5. Supervision and establishment.	900	
6. Miscellaneous, rent, Municipal taxes, insurance, etc.	400	
7. Other items	100	
Total	

FORM II.—Works cost per yard of cloth of 45" width.

—	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
				Rs. a. p.	
1. Raw material	1 3 2	
2. Mill labour	0 2 4	
3. Power and fuel	0 0 4	
4. Current repairs and Maintenance.	0 0 8	
5. Supervision and establishment.	0 1 0	
6. Miscellaneous, rent, Municipal taxes, insurance, etc.	0 0 5	
7. Other items	0 0 1	
Total	

Enclosure (7).

(*The Srirama Weaving Shed, Bangalore City.*)

1. (a) Private registered company.
2. Present equipment is for a production of 4,500 yards a month of reeled yarn dyed goods.
3. The actual output has been a lac and quarter rupees of pure silk goods.
4. All the goods are in the nature of sarees only.
5. (a) Raw silk 7,000 lbs. Nearly 60 per cent. was of foreign, origin chiefly Japan.
- (b) Imported silk is preferred mainly for its cheapness and good supply.
6. (a) 3 ozs. of raw silk required per yard.
10. Yes. With certain modifications.
11. Unwinding of raw silk on to bobbins, preparing organzino and tram, again unwinding dyed yarn on to bobbins for making up warps and quills, drawing in warps into healds and reeds and harnessing the loom with the drawn warps.
14. Our workers number 80 and the annual wages come up to about Rs. 18,000.

(24) *Letter No. 125, dated the 25th July, 1938, from the Superintendent of Sericulture in Mysore, Mysore.*

Subject and reference:—QUESTIONNAIRE ISSUED FOR SILK AND ARTIFICIAL SILK GOODS MANUFACTURERS.

I have the honour to enclose herewith three copies of the replies received from Mr. M. S. Basavanna Devaru, Maniballi, Yelandur Taluk, for the Questionnaire regarding Silk and Artificial Silk Goods Manufacturers issued by the Indian Tariff Board.

1. Our concern is an unregistered private company and is purely an Indian concern.
2. There are six power looms with a productive capacity of 50 yards of silk fabrics or 100 yards of spun silk cloth per day.
3. The total output of manufactured goods since the concern was started is noted below:—

Year.	Pure Silk.		Spun Silk.	
	Yds.		Yds.	
1935-36	500		8,000	
1936-37	2,500		10,000	
1937-38	3,000		12,000	

4. Only pure silk and spun silk fabrics are manufactured purely for South Indian and local consumption. Articles manufactured are sarees 80 per cent.; of the total output, upper cloths 5 per cent.; Dhotis 5 per cent.; Shirtings 5 per cent.; Coatings 5 per cent.
5. The annual consumption of the raw materials of our factory is noted below:

Year.	Raw Silk.		Spun Silk	
	lbs.		yarn.	
1935-36	80		1,000	
1936-37	420		1,250	
1937-38	500		1,500	

Only indigenous raw silk is used for the manufacturing silk goods. Since Indian produced spun silk is not yet available, imported spun silk is used for manufacture of spun silk goods.

6. (a) 6½ tolas of raw silk is required to produce one yard of silk cloth and 5½ tolas of spun silk yarn to produce one yard of spun silk cloth.

(b) No mixture articles are prepared in this factory.

7. The cost per lb. of raw silk and spun silk is noted below for the last three years.

Year.	Raw Silk.		Spun Silk.	
	Rs. A.		Rs. A.	
1935-36	7	8	4	8
1936-37	8	0	4	12
1937-38	7	8	5	2

The prices quoted for spun silk is f.o.b. Bombay, which is the port of importation. The Railway freight is 2 annas per lb. for reaching the factory. The raw silk utilised is of only local production.

8. 52 tolas of raw silk is required to produce 1 lb. of silk cloth and 42 tolas of spun silk is required to prepare one lb. of spun silk fabric.

9. The prices of the finished goods of this factory is 25 per cent. costlier than the imported articles of the same quality.

10. Our machinery is suitable for preparing articles of both indigenous raw silk and of imported raw and spun silk.

11. Raw silk is purchased locally and is twisted in our throwing factory. Degumming and dyeing is done in our factory. Winding and warping also is done in our factory to make the yarn ready for the looms. The cloth is woven on H. L. Power looms and finishing also is done in our factory.

14. The labour force employed in the factory is noted below:—

Year.	Number of employees.	Annual wages bill.
		Rs.
1935-36	16	2,200
1936-37	20	3,000
1937-38	20	3,200

Apprentices are trained in the factory. They are given small wages in the period of their training and are employed in the factory on full wages after their training is completed.

15. The foreign competition is very keen in South Indian Markets.

17. Block value of the factory is noted below:—

Detail.	Value.
	Rs.
1. Leases and concessions . . . . .	...
2. Lands and buildings	5,560
3. Plant and machinery	7,800
4. Other assets including raw materials. Finished goods and spare parts	7,500

18. Present day cost of the building is Rs. 5,560 and that of plant and machinery is Rs. 9,360.

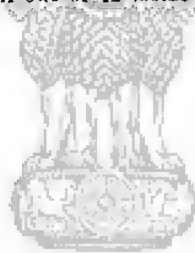
19. The amount written off for depreciation is noted below:—

Year.	No reserve fund is set apart.
	Rs. A.
1935-36	600 0
1936-37	575 8
1937-38	552 4

22. Expenditure on Depreciation and Interest on capital is noted below:—

Year.	Depreciation.	Interest on capital.
	Rs. A.	Rs.
1935-36	600 0	1,260
1936-37	575 8	1,500
1937-38	552 4	1,820

23. The production of sarees, etc., in the mill has enabled quicker production of the same at a lower cost and articles of better quality are manufactured, with the result that the handloom weaver is unable to compete with the factory production and consequently some silk looms have given up silk weaving. In Mamballi out of 12 looms that were weaving silk goods only 2 are working now.



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12. Statement showing the total expenditure on the production of silk goods and works costs per yard of cloth.

Serial No.	Details of expenditure.	Total expenditure incurred on the production of silk goods.			Works cost per yard of cloth.			Remarks.
		1935-36.	1936-37.	1937-38.	1935-36.	1936-37.	1937-38.	
		Ra. a. p.	Ra. a. p.	Ra. a. p.	Ra. a. p.	Ra. a. p.	Ra. a. p.	
1	Raw material . .	5,100 0 0	7,453 12 0	11,625 0 0	A1 2 9 B0 9 2	1 3 2 0 10 0	1 2 9 0 11 2	
2	Mill labour . .	1,800 0 0	2,600 0 0	2,700 0 0	A0 6 4 B0 3 2	0 4 2-6 0 2 1-3	0 4 8-6 0 2 4-3	
3	Power and fuel . .	500 0 0	600 0 0	6,000 0 0	A0 1 10 B0 0 11	0 1 2 0 0 7	0 1 0-6 0 0 6-3	
4	Current repairs and maintenance.	200 0 0	250 0 0	250 0 0	A0 0 8 B0 0 4	0 0 6 0 0 3	0 0 5-2 0 0 2-6	
5	Supervision and establishment.	400 0 0	400 0 0	500 0 0	A0 1 4 B0 0 8	0 0 10 0 0 5	0 0 10-6 0 0 5-3	
6	Miscellaneous, rent, etc..	15 0 0	15 0 0	15 0 0	A0 0 2 B0 0 1	0 0 1 0 0 0-5	0 0 0-5 0 0 0-2	
7	Other items . .	250 0 0	300 0 0	300 0 0	A0 0 10 B0 0 5	0 0 8 0 0 4	0 0 4 0 0 2	
	Total . .	8,265 0 0	11,218 12 0	15,990 0 0	A1 13 11 B0 14 9	1 10 7-6 0 13 8-35	1 10 2-5 0 14 10-7	

N.B.—A indicated prices for silk goods.
B " " spun silk goods.

52. Chambers of Commerce and Associations excepting those in Mysore.

- (1) *Circular letter No. 544-A., dated the 24th May, 1938, from the Tariff Board to certain Associations and Chambers of Commerce.*

I am directed to forward the detailed questionnaire regarding the sericultural industry. The Tariff Board hopes that you will send a reply (with 5 spare copies) to this questionnaire as soon as possible, and in any case not later than the 23rd July, 1938.

- (2) *Circular letter from the Tariff Board, No. 595, dated the 15th June, 1938, to certain Associations and Chambers of Commerce.*

In connection with the enquiry into the grant of further protection to the Sericultural Industry in India, I am directed to forward herewith questionnaire for Importers and Traders. The Board hopes that you will send a reply (with 5 spare copies) to this questionnaire as soon as possible, and in any case not later than the 23rd July, 1938.

- (3) *Letter dated the 20th July, 1938, from the President, the Silk Merchants' Association, Kalbadevi, Post No. 2, Bombay.*

Re: EXTRA DUTY OF RS. 2 PER LB. ON SILK PIECE-GOODS IMPORTED FROM CHINA AND JAPAN.

During our interview with you on 9th May, 1938, you desired us to send to you the views of this Association in connection with the protective duty on silk piece-goods imported from China and Japan. I take this opportunity of expressing the views of this Association and trust that the same will be duly considered by your Board.

The extra duty of Rs. 2 per lb. was levied on Silk piece-goods imported from China and Japan in view of the representations made by the Mysore and Kashmir State Governments with the declared object of giving protection to indigenous industry in the Country including the handlooms. My Association does not think that the object with which this additional burden was imposed has been fulfilled in any measure. On the contrary it has been a fruitful source of smuggling of silk piece-goods and to a certain extent of artificial silk piecegoods carried on, on a very large scale for the past several years by questionable methods and devices invented by unscrupulous smugglers. We get reports published in Papers that everyday cases of smuggling in silk piece-goods have been detected and goods confiscated. The reports are not a correct index of the extent of smuggling carried on with impunity for about 5 per cent. of the actual cases of malpractices happening are detected. The goods smuggled are from Pondicherry, Karikal, Chandernagore, Mahe, Goa, Daman and other Persian Ports, viz., Pasni, Gwadur and such other Ports from where the goods are brought to British territory without payment of duty. Even smuggled goods are taken to British territory from Kathiawar Ports. This is a great blow to the trading in silk piece-goods and artificial silk piecegoods and which heavily tells upon Government Revenues and results in ruination of the entire trade in the Country. The dire consequences of the ever increasing menace of smuggling are that some honest merchants who have paid dues of rupees by way of import duty to the Government of India are obliged to close down their business while others have been compelled to reduce to a minimum the extent of their legitimate business operations. If this situation in the silk trade is not averted, my Association apprehends that the inevitable result of the continuation of such nefarious activities will be nothing short of the closing down of the legitimate business of honest merchants.

There is also another method of evading correct duties and which is due to the irregularities of assessment at various Ports due to the lack of knowledge of the correct price or in the absence of ascertaining correct Market value of certain kinds in those particular Ports and thereby assessment is levied on Invoice value which is to a certain extent falsely prepared to evade the correct payment of duty. There should be one uniform method of levying these duties by all Ports and that method should be by fixing the Tariff Values on weights.

The third method of evading correct duty is that merchants try to defraud the Customs authorities by various tactics with the knowledge of the Department or sometimes without their knowledge. Before the year 1923 the duties were low while after the year 1923 till to-day the duties have been enhanced to such an alarming extent that on certain qualities we have to pay 350 per cent. while the minimum duty on certain qualities is about 80 per cent.

Also there is a method to cheat the Customs authorities by replacing one thing for the other either with the knowledge of the Officers concerned or without their knowledge and clearing valuable goods and replacing cases of the same marks and numbers with cotton rags, etc.

If the Government of India want to protect legitimate and honest trade they should enact a legislation by which criminal prosecution should be well launched against those carrying on these mal-practices. Unless preventive and deterrent measures are taken to checkmate the frauds and mal-practices employed by the smugglers, we think no Protection, however, genuine and well intentioned, can be of any use to the indigenous industry. What is happening to-day is that monies go into the pockets of dishonest people and the trade and the Government and the home industry suffer without any advantage to any one of them. Therefore the best course for the Government is to reduce the duty so that consumers may be benefited, the trade may be protected and the Government Revenue would be increased to a very large amount. At present Government think that the Import duty is derived steadily for the last 10 or 15 years and therefore smuggling or evasion of duty has dwindled down to a considerable extent. But we may point out that if they take into account the volume of Exports from China and Japan, they can safely realise the fact that half the duties have been collected at various Ports and other half goes to the pockets of dishonest persons who take their goods from bonded warehouses. If the Government want to give Protection to the indigenous industry, the best course would be to prohibit absolutely the importations of these goods or fix such quantities as would give real protection to indigenous industry.

In conclusion, we are prepared to give you specific instances as also the reports of smuggling which we have got in our files which will convince you that there is a strong case for reduction of duty of Rs. 2 per lb. on silk piece-goods and the present duty of 5 annas per square yard on artificial silk should be reduced to 2 to 3 annas per square yard or 50 per cent. *ad valorem* whichever is higher.

Commending this to your very prompt and serious attention and thanking you.

(4) *Letter dated the 27th August, 1938, from the Honorary Secretary, Silk Artificial Silk Mills Association, Podar Chambers, Parsee Bazar Street, Fort, Bombay.*

Re: QUESTIONNAIRE FOR THE SILK AND ARTIFICIAL SILK GOODS MANUFACTURE.

As it is quite well known, mills for the manufacture of Silk and Artificial Silk goods have been very recently started in this country, their coming into existence having been made possible only after the protective duty came to be imposed on piece-goods imported from Japan. Owing to the

infancy of this industry and the inexperience of the manufacturers, it is very difficult if not impossible for an individual manufacturer to answer fully and accurately many of the questions of the questionnaire, they requiring replies of a minutely detailed and precise nature. I am therefore directed by my committee to forward you replies of a general nature and to add that the same are based on the common experience derived by the members from the working of their respective mills.

In reply to question No. 9, I have to state that c.i.f. prices of the imported goods (mainly Japanese) are about 75 per cent. lower than those of our locally manufactured goods, as for example Shiozie plain, i.e., artificial warps and weft structure about 90 ends and 60 picks, the Japanese c.i.f. prices are As. 1-3 per yard, while the cost price of similar local manufacture is about As. 4-6 per yard. This difference in price is partly due to heavy import duty on the yarn used which is not manufactured in India and partly due to lower efficiency of the workers who are quite new to this line of manufacture. Our workers are not used to this fibre which is synthetic and highly susceptible to the change in atmospheric conditions. In a hot country like ours, the hands at work perspire and perspiration at once affects the thread and leads to breakages and had efficiency.

Moreover most of the mills started here have to undergo heavy expenses of the Japanese technical advisers and engineers as this particular art of manufacture is not yet known to Indian engineers. Besides paying for this Japanese technical staff, the mills have also to train Indian staff for future and consequently the cost of production and overhead charges of our mills are comparatively much higher. It will not here be altogether out of place to say that but for the protection afforded to this industry by the revenue tariff duty, the present mills could never have come into existence and even now the capital invested in this industry has hardly been able to earn a nominal rate of interest. It would be a lucky day for this industry when the capital invested therein earns a remunerative rate of interest but this can only be possible if the Government gives this infant industry the much needed protection in the measures suitable to the country and its development.

This industry has advanced to a considerable extent in many countries and Japan where it commenced only a few years ago, is now the leading country in the world. Looking to the import of piece-goods in India, artificial silk products imported in large quantities show a happy sign that mills are now being erected in India to meet the nation's demand for this kind of cloth but their maintenance is only possible if the industry receives due support.

Though the principles of weaving are the same as in cotton preparation before weaving is very complicated and elaborate and consequently cost of production is higher, the workers also being untrained in the new industry. Handlooms are having a share of the trade in their own special lines which mills cannot cater and the existence of the mills in no way hampers the interests of the handloom weavers.

Referring to question No. 10, the machinery fitted is specially devised with tensionless arrangement and is equally suitable for the manufacture of silk goods either from Indian raw or imported silk.

With regard to question No. 11, the process of manufacture is as follows:—

The yarn is bought in hank from the local market in cases of 200 lbs. As it is difficult to get uniform diameter in any denier we have to examine the case and discard about 5 lbs. of yarn of varying diameters, i.e., either thicker or thinner.

This yarn is taken up for dyeing or it goes straight for winding. The preparation of artificial silk is based on the same principles as those of the handlooms. There is double process of winding before and after sizing where lot of waste generally occurs. Even the warping, i.e., making beams for the looms is at a very low speed and hence it adds to the cost.

The bleaching and dyeing process is also a difficult matter and the manufacturer has, more often than not, to give compensation either for difference or irregularity in shades.

Most of the mills are in rented sheds and hence they have to pay rent which comes to about 12 per cent. of the cost of building.

Most of the mills being of small unit, it is impossible for them to take Tata's hydraulic energy with the result that they have to pay more charges to the electric supply company which comes to Rs. 6 to Rs. 8 per month per loom.

With reference to question No. 13, we do not think that the prices at which foreign producers sell their goods for export to this country are unremunerative but in the case of Japanese producers, we are inclined to believe that they are selling goods at a really low margin of profit if any.

Replying to question No. 15, it is rather difficult to say in which of the Indian markets, foreign competition is the keenest as it is almost equal and equally keen in practically all the markets.

With reference to question No. 16, our products are in a disadvantageous position compared with similar imported products as regards freight as in the instance of Japan which gives delivery of goods in up-country markets at the same price as in Bombay which it is not possible for a local manufacturer to do for obvious reasons.

With reference to question No. 17, the estimated cost for a building with a North Light shade for complete plant of 50 looms will be about Rs. 60,000 to Rs. 75,000. The cost of machinery of Japanese make would be on an average about Rs. 1,500 per loom.

With reference to question No. 23, the products of handlooms are sold in the market much cheaper than the products of the local mills. The hand-made shirting of 27" width is sold for As. 2-3 per yard, while Mill's shirtings are sold for about As. 5 per yard. There is absolutely no competition between the handloom weavers and the mills as their respective products differ both in kind and in cost.

With reference to question No. 24, the silk industry is very much affected by smuggling as gathered from reports from our silk merchants and also from reports appearing in our local newspapers.

(5) Letter dated the 31st August, 1938, from the Silk and Artificial Silk Mills Association, Bombay.

Further to our Memorandum dated the 27th August, 1938, we beg to submit that the Association supports the plea of Mr. Advani, Director of Industries, on behalf of the Government of Bombay to increase the Import Duty on Silk, Artificial and Staple Fibre Piece-goods. If this is done, it will relieve Sericulture, Indian Silk and Artificial Silk Mills, as also the Handloom Industry though it may slightly be unfavourable to the Importers of Silk and Artificial Silk Piece-goods who may plead that such a measure may lead to the increase of smuggling. If the question may be examined in view of services to Industry, the smuggling pleas will automatically disappear, because Government in that case will keep a vigilant eye on the Frontiers through which such goods are smuggled, and as the Importers are middle-men with no manufacturing or industrial risks their main idea is to earn commissions only and they have no idea what-so-ever about how the Industry should prosper and thus help the poor ryots of the country.

As regards Mr. Advani's request for increasing duty on Silk, Artificial Silk and Staple Fibre Yarn, we are of the opinion that the same will not help Sericulture now or in the immediate future, because India cannot supply even 10 per cent. of its consumption of raw silk and thereby handlooms only be starved apart from the question of Mills.

If at all the Tariff Board should view this point from different aspects, duty on Staple Fibre may be increased, because, that will not very much affect the handloom; but the question of duty on yarn if considered as a

whole should be postponed until such time India can produce sufficient quantity of yarn required for the country. Besides above, India has no supply of Artificial Silk Yarn and it is not fair to think of increasing duty thereon, which if done, will kill this infant Industry and handlooms since silk is not available in required quantity.

Artificial Silk Industry has come to stay in the World and has not killed American Silk Industry as contended by some in India, that Artificial Silk will kill Silk Industry in India. Silk being very costly, the general public excepting the richer classes who in India are in a microscopic minority, cannot afford to wear silk clothes.

Artificial Silk acts as a middle stage between Silk and Cotton and consequently deserves due consideration for its footing into the country as done in other Foreign Countries if we are to replace all Foreign Imports by producing sufficient quantity in the country, thereby helping to remove unemployment without any detriment to handloom industry.

Indian Cotton at present is very unremunerative to the farmer and short staple cotton and cotton waste practically kill the farmer and are sold away for practically nothing compared to the cost of production and farmers' interest. If on the other hand Artificial Silk Industry is supported, naturally, the Artificial Silk yarn production plant may rise in India which may help the industry to be self-supporting after a number of years, thus helping the country, the cotton producers and the handloom industry by supplying artificial silk yarn of Indian production at their very door.

The Government of Bombay and the Agricultural Research Council of India are trying to find out successful uses of short Staple Cotton and Cotton Waste to turn them into Artificial Silk Yarn by putting up a Plant if possible which, if done, may in the end benefit the country at large.

This is only possible if Artificial Silk Industry is supported and treated as indigenous industry. It is necessary therefore that, as every country affords facilities to its indigenous industries, India also should give facilities to Artificial Silk Industry and with a view to give necessary help, the increase on Import Duty on piece-goods with reduction or if impossible then *status quo* position in Import Duty on Artificial Silk Yarn are the only two possibilities.

It, however, the view is taken that the Government should have sufficient revenue, then in no case import duty on yarn should be increased without proportional increase on import duty on piece-goods which would not only protect the infant industry and the capital invested due to present 5 annas revenue Tariff on Imported Artificial Silk Piece-goods, but will at the same time not be injurious in the extension of Sericulture and help the handloom industry as well.

(6) *Letter dated the 20th/21st September, 1938, from the Silk and Artificial Silk Mills Association, Bombay.*

As promised by the representatives of the Association during the course of their evidence before the Board in Bombay on the 31st August, 1938, I send you herewith a copy of a letter received by Messrs. Anandilal Podar & Co. from the Millowners' Association, Bombay, giving estimated percentages of world production of various textile fibres in the year 1937. I also send you under separate packet a statistical chart* issued by the aforesaid Messrs. Anandilal Podar & Co. giving similar and further information as gathered by them from best available sources for the year 1936. From these it will be noticed that while the production of staple fibre has doubled in the year 1937 as compared with the figures of 1936, that of silk has remained unchanged for the last two years at 0.3 per cent. It will be recalled that the Chairman of the Association had during the course of his evidence stressed this point demonstrating how small a share India could possibly have in the world production of silk fibre particularly when it is

* Not printed.

remembered that of the 0·3 per cent. of the world total production nearly 80 per cent. is produced only by America and Japan jointly.

Further, the representatives in reply to a question stated that handloom products met with no competition from mill products and to substantiate that statement, they promised to furnish the Board with the samples of various handloom and mill products together with their respective prices. I now send you under separate packet two groups of samples, one of handloom products, given serial numbers from one to ten and the other of mill products, marked from A to E. Descriptions and prices of these samples are given on the attached sheet*. On a comparison it will be seen that while there are certain handloom products which are peculiar to handlooms only, there are other products which the handlooms and mills both produce but since their prices materially differ, no question of competition can possibly arise between them.

Regretting the delay that has occurred in forwarding the figures and samples but trusting they are still in time to be useful.

Copy of letter No. 3578—3 of 1938, dated the 27th August, 1938, from the Millowners' Association, Bombay, to Messrs. Anandilal Podar & Co., 801, Cotton Exchange Building, Marwari Bazar, Bombay.

In reply to your enquiry dated the 23rd instant, I subjoin a statement showing the estimated percentage of world production of various textile fibres in the year 1937, which totalled 29,447 million lbs. in weight:—

	Per cent.
Cotton	62·5
Wool	7·7†
Jute	11·7
Hemp	6·3
Flax	5·3
Rayon Yarn	4·0
Staple Fibre	2·1
Silk	0·3

As regards the distribution of these fibres amongst the various countries of the world, I enclose a statement giving such data as is readily available.

A comprehensive survey of the production, distribution and consumption of textile fibres has just been issued by the Intelligence Branch of the Imperial Economic Committee. Copies of this publication entitled "Industrial Fibres" can be had from the Controller, H. M. Stationery Office, (Address:—Adastral House, Kingsway, London, W.C. 2) at 2s. 9d. post free, and if you are interested in pursuing the matter, perhaps you might secure a copy direct.

ESTIMATED WORLD PRODUCTION OF TEXTILE FIBRES.

I. Cotton.

	1937-38 Season. (000's omitted.)
Total Production	Bales. 40,645
U. S. A.	20,646
India	5,665
Russia	3,782
China	3,083
Brazil	2,282
Egypt	2,202
British East Africa	346

* Not printed.

† Wool is taken at its clean weight; if the greasy weight is taken, the percentage would be 12·6.

II. Wool (*Greasy basis*).

	1937-38 (In Million lbs.)
Total	Not available.
Australia	1,035
Argentina	380
New Zealand	313
Union of South Africa	270
United States of America	457
United Kingdom	107

III. Rayon.

	1937 (000's omitted.) Lbs.
Total	1,137,575
Japan	330,000
United States of America	312,000
Great Britain	119,700
Germany	110,000
Italy	104,300
France	48,000
Netherlands	22,700
Belgium	17,000
Canada	15,675
Poland	13,800

IV. Staple Fibre.

	1937 (000's omitted.) Lbs.
Total	604,125
Japan	174,000
United States of America	20,000
Great Britain	35,125
Germany	200,000
Italy	157,000
France	13,500

V. Jute.

Approximate tonnage of yield of Jute Fibre.

	1936 Tons.
India	1,560,000
Others	32,000
	<hr/> 1,592,000

VI. Silk.

1936-37 Season.

Total Production 120 million lbs.

VII. Flax.

1936-37 Season.

Total Production 1,642 million lbs.

(7) Letter dated the 21st July, 1938, from the Bombay Yarn and Silk Merchants' Association, Tumbakanta Post No. 3, Bombay.

I am directed by my Committee to refer to your letter No. 595, dated the 15th June, 1938, and in reply to send you hereby the views of my Committee on the questions raised therein.

1. (a) The foreign countries that compete most with Indian silk are China and Japan.

(b) Competition in this respect is keenest in filature silk in Kashmir and in all parts of India wherever the handloom industry is in existence.

2. Canton filature 20/22 deniers Rs. 4-4 per lb. Japan filature white 20/22 Rs. 5-6 per lb. Japan filature yellow 20/22 Rs. 5-6 per lb. Kashmir filature yellow 20/22 Rs. 5-12 per lb.

Canton Filature.

	Per lb.
	Rs. A. P.
C.i.f. price Rs. 340 per cwt., i.e.	2 9 0
Landing charge	0 0 3
Tariff duty	0 13 0
Protective duty	0 14 0
Ex-Godown	4 5 0

Japan Filature.

	Per lb.
	Rs. A. P.
C.i.f. price Rs. 600 per cwt., i.e.	4 9 0
Landing charge	0 0 3
Tariff duty	1 3 0
Protective duty	0 14 0
Ex-Godown	6 10 3

3. India produces only yellow filature, Mysore being an exception which produces other types of filature silks also of inferior kind in negligible quantities. The Committee of my Association is not in a position to supply information regarding other types of silk, they not being available in the market.

4. Yes. The Indian silk is always dearer because of small production. The difference between the price realised for India silk and foreign silk is attributed to the fact that Japan is the greatest producer of silk on mass production basis satisfying about 80 per cent. of world's demand of silk. This mass production is again facilitated by long standing experience, climatic conditions, soil, skilled and organised labour and last but not the least Government facilities. The attention of the silk producers in Japan

is entirely focussed on this sort of cultivation. Religion is another handicap in the development of silk industry in India.

5. The Railway freights per maund from Bombay to various towns in India are given below:—

	Rs.	A.	P.
Ahmedabad	1	6	0
Bangalore	2	10	0
Bagalkot	1	10	0
Conjeeveram	3	0	6
Kumbhakoram	4	2	10
Madras	3	8	3
Kashi	2	14	11
Surat	1	2	0
Sholapur	1	4	7
Salen	3	12	8
Nagpur	2	5	4
Multan	4	0	0
Amritsar	3	15	3
Warangal	2	9	7

6. No definite answer can be given to this query because the prices of foreign as well as of Indian silk as of most other commodities are generally governed by the world trading conditions. General trade conditions are bound to be reflected and hence the market fluctuations. Prices in Japan and China are entirely governed by foreign demand.

7. There cannot be any comparison in quality between Indian silk and imported silk because they materially differ in many respects. Kashmir and Bongal produce 99 per cent. yellow. Mysore produces 100 per cent. greenish white. Japan produces 70 per cent. white and 30 per cent. yellow. China produces 50 per cent. yellow and 50 per cent. white. Again no comparison can be made by sight. There is no scientific basis for production and distribution for silk in India and hence no comparison can be made as regards price also.

As regards the third question in this query my Committee think that defects in Indian silk as in any other industry can be remedied by extending proper Government help and encouragement. Race of silk-worms reared in India and the colours of silk produced are very different from those of imported silk while maximum demand for consumption in India is for the white type. Mysore is the only state in India where silk industry is taken as a State aided industry.

8. Process of production of raw silk in India and in other countries is generally the same. The only difference is in respect of machinery equipment, inefficiency of production and unskilled and unorganised labour.

9. Yes. Indian manufacturer as stated above does not possess anything compared to a foreign manufacturer as he is generally at a disadvantage in respect of proper plant and machinery, material, etc., as stated above. Indian freights and railway charges are also higher.

10. Cannot forecast. The future trend of price of raw silk depends entirely on world trading conditions in general and on New York silk market in particular which consumes about 80 per cent. of the total world production. My Committee, however, think that the lowest prices for raw silk have been reached at present.

11. The present classification and tariff valuation of imported raw silk have been classified according to the recommendations of Tariff Board of 1927. My Committee think that they are quite suitable for customs purposes. This does not in any way operate to the disadvantage of the indigenous producer as suggested in the Tariff Board Report of 1933 and as suggested by

Mysore requisitions. My Committee, however, would not have any objection if the Tariff Board thinks it proper to fix duty *ad valorem*.

12. My Committee is in entire agreement with the views expressed in this query. The substitution is entirely due to the price factor and heavy duties on raw silk.

13. The rise in the price of imported silk in January, 1937, was of a permanent and real nature. It cannot be attributed to any change in quality of imports or variation in the price as general world trading conditions are bound to be reflected in every market as stated above. Silk market cannot remain an exception to this.

14. My Committee do not think so.

15. To a certain this is true. The exporters of foreign silk do pay attention to the requirements of the Indian consumers. Preferences in matter of quality, finish and packing also affect competition to a slight extent. This defect in India can be easily rectified.

16. My Committee think that Indian importers of foreign silk are generally importing only filature silk which is produced to the requirements of the Indian market. Hence no change has been visible in recent years China native silk has disappeared.

17. The importers sell direct to the weavers as well as through retailers or brokers according to the prevailing circumstances.

18. The weavers generally obtain raw materials from merchants or through commission agents excepting raw silk and silk yarn which are manufactured in India. Price per lb. is difficult to be ascertained.

19. The weavers do not use yarn made from staple fibre in the manufacture of silk goods. Staple fibre is separately and independently used without any mixture. Hence the following two questions in this query do not arise.

20. There is a tendency for a staple fibre yarn to oust, to a certain extent, silk as people have now-a-days taken a fancy for staple fibre. The second query in this question is difficult to be answered very correctly but my Committee think that it will look up slowly on account of higher prices of silk.

21. The performance of these operations generally depend upon and are carried out by the weaver himself according to the convenience and the space at his disposal. In other cases it may be carried out by some other agency.

22. No definite information can be given regarding this query. It much depends upon the type of cloth the weaver proposes to manufacture.

23. Spun silk is generally used for shirting and coating. Not always.

24. Raw silk is generally sorted or graded by the reeler himself. If uniform standard of gradation and sorting be introduced and be adopted by the parties concerned the weaver would certainly take advantage of it. This again would result in the increased consumption of Indian silk.

25. The statement made before the last Tariff Board enquiry regarding the preference extended by the weavers to the imported silk were correct and still hold good. There is no improvement what-so-ever and no efforts have been made hitherto to remedy these defects.

26. There has been no improvement hitherto in the method of re-reeling.

27. The statement made in this query has been an established fact. There has been no change in the present position. The position is rather getting aggravated on account of the extreme cheapness of imported artificial silk yarn.

28. My Committee think that the protection extended to Indian raw silk is more than sufficient under the prevailing circumstances.

29. Japan occupies a pre-eminent position as a producer of silk, 80 per cent. of world's demand for consumption being supplied by Japan. Thus Japan's silk industry is based on mass production which considerably helps it to maintain its pre-eminent position. Another reason why Japan has

obtained a pre-eminent position as an exporter to India of raw silk and silk goods is that people have taken a fancy for filature silk since 1933.

30. My Committee is not in a position to reply this query.

31. Yes. It is always the human nature to go in for cheaper products. This does work to the disadvantage of Indian product.

32. My Committee is not in a position to reply this query.

33. The result of protection extended to the sericultural industry in India cannot be gauged at present, the new filature ventures being in the initial stages.

34. Yes. There does exist a tendency to produce a larger quantity of silk goods in India from imported raw materials if they are available cheaply.

35. My Committee is not in a position to give any specific instance but they do suspect smuggling in imported silk through Persian Gulf, Kathiawar Ports and French and Portuguese territories in India.

The attention of the Government of India and the Central Board of Revenue against complaints of these types of smuggling have been already drawn. All information regarding this cases are on record with the Government of India and the Central Tariff Board.

My Committee have endeavoured to reply the questionnaire as accurately as possible in the light of available data and statistics at their disposal and in consultation with people well-informed in the subject and with interest in this industry. While replying this questionnaire my Committee suggest that any further increase in duty will result in considerably encouraging smuggling as has been proved beyond doubts with regard to other commodities and will result in killing the handloom industry with disastrous effects. My Committee understand that for the last three years Kashmir and Mysore varieties are being sold on a remunerative basis and hence there is no room at present for any further increase in duty. My Committee take it as their duty to further suggest that every infant industry invariably needs Government help and protection in the initial stages and hence think that what is most essentially required in the Government grants on a large scale in the extension and development of this vital industry and in increasing production of filature silks on a mass production basis which at present is comparatively poor being only 10 per cent. of the total Indian consumption.

(8) *Letter dated the 19th September, 1938, from the Secretary, Bombay Rayon Association, Bombay.*

I am directed to address you on behalf of the members of the Bombay Rayon Association, which comprises local importers of the following British and Continental manufacturers of artificial silk yarn:—

Messrs. Lustre Fibres, Ltd., England, representing Courtaulds.

Messrs. S. N. I. A. Viscosa, Italy.

Messrs. Commerciale Italiana Societa Anonima per il Raion, Italy.

Messrs. Chatillon, S. A. I., Italy.

Messrs. Societa Anonima Gerli Industria Raion, Italy.

Les Filles de Calais, France.

Messrs. Glanzstoff/Courtaulds, Ltd., Germany.

Societa de la Viscose Suisse (Emmenbrucke) Sa, Switzerland.

Messrs. Steckborn Artificial Silk Co., Switzerland.

My Association has followed with considerable interest the tour of your Board throughout the various centres of the silk industry in India and has carefully studied the reports thereon which have appeared in local news papers from time to time.

It is understood by my Association that your Board has been constituted to consider the protective duties already afforded to the sericultural industry

and to decide whether these duties should be maintained or altered. It is further understood that the industry bases part of its case for increased protection upon the necessity for protecting handloom weavers of pure silk goods.

In this latter respect, my Association has perused with concern, suggestions that increased duties on the imports of artificial silk yarn will assist in affording some measure of protection to the sericultural industry and in these circumstances, I am desirous to request you to place the views of the Association before your Board.

In the first place, my Association is strongly of the opinion that there can be no real competition between artificial silk yarn and pure silk, this owing to the very wide disparity which exists in price. This disparity in price is not a doubtful factor but a reality and my Association contends that an increased import duty on artificial silk yarn would not therefore lead to any benefit being derived from the sericultural industry.

On the contrary, it is the view of my Association that an increase in the import duty on artificial silk yarn would impose a serious handicap on a far more important industry, namely, the Textile Industry which consumes very large quantities of this yarn.

Further, it is contended by my Association that such an increased duty would also penalise similarly a very large handloom industry. In this respect, it is the experience of the members of my Association over many years of trading in India that the handloom weavers producing cloths of pure silk form a very small minority indeed when compared with the large number of weavers whose cloth productions are derived from the use of artificial silk yarn. In the view of my Association, the use of artificial silk yarn affords to the Textile Industry and to the handloom weavers alike, an opportunity of varying their cloth productions cheaply, whilst in turn, these varied productions form a most important asset in competing against the importations of all artificial silk and all mixture cloths of foreign origin.

It is contended therefore, that any imposition of an increased import duty on artificial silk yarn would not lead to any benefit to the Sericultural Industry, but rather to an additional burden being placed upon the activities of the Textile Industry as also of the very large handloom industry. It will be of interest to illustrate the increasing value of artificial silk yarn to the above industries by a glance at the figures relating to importations 7½ million lbs. in the period April-March, 1927-28 and 31¼ million lbs. in the period April-March, 1937-38.

Finally, my Association deems it only proper to stress the fact of the low purchasing power of India's population and it follows therefore, that a varied and attractive range of cloth productions saleable at prices within the range of the Indian consumer is not only desirable but a necessity.

(9) *Letter No. 2089, dated the 19th July, 1938, from the Indian Merchants' Chamber, Jehangir Wadia Building, Esplanade Road, Fort, Bombay.*

I am directed by my Committee to refer to your letters of the 24th May and 15th June, 1938, forwarding to them copies of the questionnaires issued by the Board in connection with the enquiry into the claims for protection to the silk industry. As the said questionnaires are mainly intended to be answered by importers, traders and industry, my Committee are not here replying to the same. They would, however, make a general statement of their views on the question of continuing the protection to the Sericultural Industry and incidentally to the silk industry.

Before, however, dealing with the present reference, my Committee would like to refer to the fact that the protection that was afforded by the Tariff Textile Protection Amendment Act of 1934 did not give to the industry the measure of protection recommended by the Tariff Board. In fact, by that

Act, Government granted to the industry a much lower level of protection than was found justified by the Board. Even during the first period of protection the claims of the industry for greater relief were pressed before Government on many occasions and the Committee of my Chamber had sent representations for an immediate review of the situation with a view to increasing the level of protection afforded to the industry. My Committee are mentioning this particularly, to urge upon the Board that, in their opinion, even the protection then afforded was half-hearted and did not go the whole way the Tariff Board or the commercial community wanted Government to go.

My Committee must in this connection draw a pointed reference to an additional consideration introduced in the Commerce Department Resolution, dated the 9th April, 1938, referring the question of the Sericulture Industry to the Tariff Board. The Board is asked to take into account, in making their recommendations, the financial needs of the country and dependence of the Government of India on import, export and excise duties for a large part of its revenue. It is very unusual for Government to charge the Tariff Board with the duty of considering the effect on revenues by any of their recommendations regarding protection to an industry, and my Committee cannot too strongly condemn the departure. My Committee most emphatically protest against the implications of introducing the revenue factor in the terms of reference. After all, the country is committed to the policy of discriminating protection and the application of that policy to any industry must, in its initial stages, be, or at least be presumed to mean, an acquiescence in the consequential drop in the revenues from the Customs and other duties on that import. My Committee, therefore, feel that in a matter concerning the protection of an industry the recommendations of the Tariff Board should be fettered by such revenue considerations. It should be guided, mainly, from the point of view of the essential requirements of the industry sought to be protected.

The claims of the industry for protection were examined in great detail by the Tariff Board and the Board came to the conclusion that after applying all the tests laid down by Government in this regard, the industry required to be safeguarded. My Committee, therefore, do not wish to discuss here the question of justification for protection. If at all the position of the industry has, as compared with what obtained at the time of the last Tariff Board Enquiry, worsened and, therefore, the strong arguments in favour of protection adduced by the Board themselves in their report in 1933 are of equal, if not, greater application to-day.

The imports of raw silk have been increasing during the last four years, as will be seen from the following figures:—

Year.	Quantity.		Value.
	Lbs.		Rs.
1934-35	2,216,920		57,37,898
1935-36	2,191,436		57,73,129
1936-37	1,977,419		64,51,871
1937-38	2,535,274		94,67,262

The figures of the production of raw silk in the country, as far as they are available, also indicate that there has been no advance absolutely. On the contrary, the Indian industry has not been able to withstand the foreign competition, and the conclusion is irresistible that the measure of protection afforded to the industry has not been adequate to serve its purpose, viz., to enable the industry to consolidate its position. Protection from competing classes of imported silk goods was also accepted by the Tariff Board in its last report and by Government by their subsequent action as an essential step in any scheme of protection for the sericulture industry. The figures, however, of the imports of silk piece-goods, as shown below,

go to show that the expectations hold by the Board have not been realised:—

Year.	Quantity.	Value.
	Lbs.	Rs.
1934-35	2,627,951	1,25,20,420
1935-36	2,146,234	90,37,207
1936-37	1,741,998	81,21,559
1937-38	1,806,324	89,92,562

It is, therefore, evident that the measure of protection given to the industry has failed to achieve its object, that the Government were not justified in fixing rates of duties lower than those recommended by the last Tariff Board and that the industry stands in greater need of assistance now than at any time in the past.

As far as the handloom industry is concerned, a corresponding and effective increase in the duty on imported silk manufactures, which has been accepted as an integral part of the scheme for the protection of the sericulture industry, is adequate compensation to that industry, for the increase in the cost of raw materials. My Committee even feel that with the increased attention now being given by autonomous Provincial Governments to the needs of the handloom industry, the protective effect of the duties on imported silk goods will be more evident and the scheme of protection will benefit this industry to the same, if not a greater, extent as the sericulture industry.

My Committee wish also to suggest that the scheme of protection recommended should include automatic safeguards against currency fluctuations and against abnormal reduction in the price of imported silk and silk piece-goods. Past experience has shown how the above factors can upset considerably the measure of protection, based on certain level of prices and exchange assumed as standard by the Board, while forming their conclusions.

My Committee, therefore, strongly urge on the Board the desirability of continuing the protection to the industry, of raising the protective duties to a level which would, having regard to all relevant factors, in the opinion of the Board, enable the industry, firstly, to withstand foreign competition, and, secondly, to consolidate its position, and of recommending a fairly long period of protection. The industry, which has a historic past, should not be allowed to die by the competition of the kind it has experienced during recent years; but should be assisted by the State in withstanding and fighting that competition. The part played by the industry incidentally in the rural economy of certain parts of the country is also a factor of vital importance and it is to be hoped that the revenue exigencies of the Government of India will not stand in the way of a just and satisfactory solution of the problem of saving the sericulture and silk weaving industry for the country.

(10) *Letter No. A/227, dated the 1st August, 1938, from the Marwadi Chamber of Commerce, Ltd., 232-34, Kalbaderi Road, Bombay.*

Re: PROTECTION TO SERICULTURAL INDUSTRY.

With reference to your letters Nos. 544-A. and 595, dated the 24th May, 1938, and 15th June, 1938, respectively and the questionnaire sent therewith, I am directed to send my Board's reply as follows:—

As the questionnaires are drafted for exporters, importers traders and manufacturers, my Board do not propose to answer them in detail. My Board will, therefore, confine themselves to a few points of general importance in regard to the sericultural and silk industries of the country.

It is a well-known fact that Indian silk industry is not of recent origin but that it dates back to times prior to the ancient civilizations of Rome, Greece, Egypt and the Near East. Historians are now coming forward with facts of the extensive trade that ancient India had with those civilizations

mainly in cotton and silk cloth. Benares has been famous for its silken fabrics for centuries. Other centres of silk production too such as certain areas in Bengal and Assam as well as Mysore and Kollegal in Karnataka still maintain their reputation for silk production. In fact it is estimated that even to-day in spite of hard competition by cheap foreign silks and artificial silks, domestic production supplies about half the demands of the country.

It is, therefore, obvious that if the Government only make up their mind seriously to help the industry the people will gladly make efforts for greater and greater production and to improve the quality and variety produced. In fact even the Tariff Board Report of 1933 agrees that the problem is more of safe-guarding and reviving an old established indigenous industry than of starting by means of protection a new industry in this country to compete with established industries of other countries. It is true that much headway is to be made in the use of disease-free seed, in the improving and cheapening of mulberry leaf, in improving the quality and yield of cocoons and in introducing in this country on a wider scale the modern technique of the West and of Japan in rearing worms, reeling cocoons, etc. But all this will follow in the wake of adequate protection against unfair competition and direct encouragement by the Government.

It may also be pointed out that the silk industry in India is still in the main a cottage industry although a few modern factories have recently been established here and there in the country. The Indian sericultural industry, therefore, still produces for the handloom weaver and handloom weaving is a cottage industry. Since the introduction of provincial autonomy, provincial Governments, at least in the provinces where Congress Ministries are in power, are making strenuous efforts to help cottage industries, to reconstruct village life and to revive the arts and crafts of the villagers that have been crushed out of existence by the machine produced goods of the West and by the unsympathetic attitude of former Governments. Any adequate protection given to the sericultural industry at this juncture, therefore, will give a greater Philip to the industry than the protection granted in 1933 could do.

My Board further wish to point out that the argument that high protection would mean a blow at the consumer does not apply with the same force to the sericultural and silk industries as it would to many other major industries of the country such as cotton. Because the consumer in the case of silk goods belongs to the upper-middle-class to a certain extent and mainly to the richer and more opulent classes. An increase in the price of articles of consumption by these classes can be borne by them much better than an increase in the price of goods of mass consumption by the millions. Thus the case for protection to sericultural and silk industries has two powerful arguments in its favour, viz., that these industries are mainly cottage industries and therefore any benefit obtained will go directly where it is needed most and secondly that the burden will fall mainly on a class that is comparatively better able to bear it.

My Board hope, therefore, that the Tariff Board will recommend a greater and more adequate protection to sericultural industry than has been grudgingly granted by the Government hitherto and for a sufficiently long period. As the Tariff Board Report of 1933 says "probably no industry has been assailed by so many dangers at the same time as the Indian Silk Industry". It is, therefore, necessary that any protection given should protect the industry from all these dangers to an adequate extent. I hope you will please excuse the delay in sending this reply.

(11) *Letter dated the 8th July, 1938, from the Japanese Chamber of Commerce, Patel House, 10, Churchgate Street, Fort, Bombay.*

We, the Japanese Chamber of Commerce, Bombay, have the honour to submit you herewith our views on the question of protection to the Sericultural Industry and hope that the same will receive your favourable consideration.

2. Foreign silk is not new in the Indian market, it was imported into this country as far back as 1851 and every year since then, even when the Indian industry was very prosperous and thriving, India has imported from foreign countries roughly 2,000,000 lbs. of raw silk. In the last two years even this has been much reduced,—in 1935-36 and 1936-37, the imports were less by about 400,000 lbs., i.e., 1,600,000 lbs. annually. Most of this imported raw silk is a very high grade filature, the like of which is not produced in India and the handloom weavers have taken a special liking for it for preparing special qualities of fabrics. This goes to prove that India still requires foreign raw silk and that the local production of raw silk is insufficient to meet the Indian demand. The high import duty will therefore seriously hit the handloom weavers and will not only deprive them of their long established trade and means of livelihood, but cause other repercussions—smuggling for instance is likely to be carried on on a large scale (as in the case of certain goods similarly taxed) to the detriment of the industry as a whole.

3. The incidence of the present duty on the imported raw silk is sufficiently prohibitive, viz., roughly 50 per cent. and the handloom weavers are already suffering heavily on this account.

4. It was in October, 1934, that the price for imported Japan raw silk touched the lowest figure of Rs. 3-12. Having fluctuated slightly for about 10 months till July, 1935, it rose steadily to Rs. 6-15 in July, 1937, and though a reaction set in thereafter and the prices have declined last month to Rs. 5-5, they are much higher when compared to those of 1933, 1934 and 1935. The present position is the China and Japan markets are advancing and looking to the present state of the industry abroad, there are less chances of the market declining over there though slight fluctuations off and on are inevitable and unavoidable.

5. We are of opinion, that, with the measure of protection already given, it should be possible for the industry to develop to the fullest extent side by side with the imported raw silk which it must be remembered is superior and the necessity for it will always be felt as it will be an infinitely long time to cope with the Indian handloom weavers' demand and peculiar requirements. May we also point out that the present plight of the Indian industry in not making headway with the existing protection is not due to the inadequacy of the protection granted but to the disorganised state of the industry itself, the primitive methods adopted and the lack of proper organization for conditioning, grading and marketing the goods and last but not the least the necessary capital which is shy.

6. In conclusion, we sincerely hope that in your recommendations to the Government you will kindly give due weight to our above views.

(12) *Letter from the Tariff Board No. 682, dated the 15th July, 1938, to the Japanese Chamber of Commerce, Bombay.*

With reference to the informal talk the Board had with your President and the Vice-Consul for Japan, I enclose herewith a supplementary questionnaire. The Board will feel most grateful if your Association will send us the replies to the 3 printed questionnaires handed over personally along with your replies to the one now enclosed by the end of this month. A line in reply will oblige.

Supplementary Questionnaire for the Japanese Chamber of Commerce, Bombay.

1. (a) Please give the c.i.f. prices of the various classes of articles shown below:—

- (1) Raw silk,
- (2) Silk yarn or twisted silk,
- (3) Noils,

- (4) Spun silk,
 - (5) Nitto yarn,
 - (6) Artificial silk yarn and twisted silk rayon,
 - (7) Puro silk goods,
 - (8) Artificial silk goods and mixtures,
 - (9) Staple fibre and coloured staple fibre.
- (b) How do these prices compare with those in Japan?
- (c) Do the export prices differ from the Home prices?
- (d) Is there any Association which fixes prices for export markets? If so, please state whether the c.i.f. prices in the different markets are according to the market conditions or same for all markets.
2. Please give the cost of production per lb. of each of the articles above named, preferably in details as asked for in question 29 of the Board's general questionnaire for the Sericultural Industry.
3. Please state the cost of producing a pound of cocoon and the kinds of worms reared.
4. Please give the temperature and humidity according to your opinion which are suitable for rearing worms.
5. How much silk are you able to obtain from a pound of cocoon?
6. What are the qualities of silk imported into India as compared to those into the United States of America?
7. In the beginning of 1937 prices of imported silk rose very rapidly; that lasted for 14 months until February, 1938, and then it dropped in that particular month. Please state whether that rise was due to temporary causes and the present price is permanent or whether the present price is temporary and may go back to the higher level. What is the cause of the rise at the end of 1936 and drop in 1938?
8. You say in your representation that the present protection to the Indian industry is adequate. Please state your reasons.
9. What is the possible effect of the war on your export trade and prices?
10. It is stated that 90 per cent. of your production is imported to the United States of America. Please state whether in the event of the trade resuming normal conditions there, there would be any shrinkage in the exports to India.

(13) *Letter No. 205, dated the 14th July, 1938, from the Japanese Chamber of Commerce, Bombay.*

We are in receipt of your letter dated 13th instant and the supplementary questionnaire enclosed therewith in connection with the silk industry and beg to say that, we shall call for required information from the Home country and try to furnish answers in time as far as possible.

(14) *Letter No. 225, dated the 1st September, 1938, from the Japanese Chamber of Commerce Bombay.*

We beg to enclose herewith a statement, prepared from the Trade Returns issued by the Finance Department of the Government of Japan, showing the export of raw silk and silk and artificial silk manufactures from Japan to British India during the last four calendar years, as desired by you.

THE JAPANESE CHAMBER OF COMMERCE, BOMBAY,
BOMBAY, 1ST SEPTEMBER 1938.

Statement of Exports of Japanese Raw Silk, Silk and Art. Silk manufactures to British India during the Calendar Years 1934 to 1937.

	1934			1935			1936			1937		
	Quantity.		Value in Yen.	Quantity.		Value in Yen.	Quantity.		Value in Yen.	Quantity.		Value in Yen.
	100 Kin.	Lbs.		100 Kin.	Lbs.		100 Kin.	Lbs.		100 Kin.	Lbs.	
Raw Silk.												
Filature Steam up to 17 denier yellow.	10	1,333 30	4,882	70	9,333 10	31,850	...	...	...	...	...	...
Filature Steam up to 17 denier white.	206	27,455 98	87,885	2,878	383,723 74	1,320,321	...	...	...	...	...	...
Filature Steam over 17 denier yellow.	2,119	282,526 27	878,621	4,638	621,051 14	1,713,982	...	...	...	...	...	...
Filature Steam over 17 denier white.	1,278	170,129 08	508,907	5,634	751,181 22	2,221,016	...	...	...	...	...	...
Other . . .	456	60,798 48	308,738	392	52,265 35	243,300	...	...	...	...	...	...
Total	4,067	542,253 11	1,789,033	13,632	1,817,554 56	5,533,503	7,261	970,775 73	3,872,000	10,993	1,465,686 69	8,460,000
Spun Silk Yarn .	10,412	1,398,565 16	4,313,738	15,442	2,058,881 86	5,737,727	...	...	...	...	...	...
Artificial Silk Yarn .	63,805	8,516,120 45	8,866,756	78,603	10,213,477 99	7,592,537	108,686	14,224,444 38	8,747,000	231,856	30,913,363 46	23,154,000

Statement of Exports of Japanese Raw Silk, Silk and Art. Silk manufactures to British India during the Calendar Years 1934 to 1937—contd.

	1934.			1935.			1936.			1937.		
	Quantity.		Value in Yen.	Quantity.		Value in Yen.	Quantity.		Value in Yen.	Quantity.		Value in Yen.
	100 Kin.	Lbs.		100 Kin.	Lbs.		100 Kin.	Lbs.		100 Kin.	Lbs.	
<i>Tissues of Artificial Silk including mixed tissues.</i>												
Habutae	Sq. Yds.	2,423,841	...	Sq. Yds.	2,749,054	...	Sq. Yds.	...	...	Sq. Yds.	...
Taffetas and Popline	1,223,138	339,787	...	2,443,164	626,028	...	...	...	...	...	...
Satins	25,697,897	7,836,281	...	22,631,367	6,332,046	...	...	...	...	...	...
Crapes and Kaboori	...	8,929,920	3,846,194	...	16,421,133	6,611,875	...	...	...	...	...	...
Voil	6,424,420	1,633,365	...	4,027,667	1,025,806	...	...	...	...	...	...
Figured Tissues	16,199,383	4,146,643	...	16,266,388	3,946,224	...	...	...	...	...	...
Check, stripped weaves	51,136	12,935	...	...	...	...	...	...
Twill Weaves	154,900	37,636	...	...	...	...	...	...
Nashijori	3,710	989	...	...	...	...	...	...
Other	5,765,883	2,163,950	...	2,675,712	1,312,034	...	...	...	...	...	...
Total	...	65,825,452	23,422,061	...	75,141,791	22,454,599	...	92,081,000	26,221,000	...	94,884,000	32,466,000

Source:—"Annual Return of the Foreign Trade of Japan" issued by the Department of Finance and "The Japan Trade Manual" issued by the Department of Commerce and Industry, Government of Japan.

(15) *Letter No. 299, dated the 13th September, 1938, from the Japanese Chamber of Commerce Bombay.*

Re: TARIFF VALUE FOR THE JAPANESE SILK.

With reference to the interview we had with you on the 30th ultimo we have the honour to furnish herewith in the attached sheet the present market values of the Japanese silk imported into India and request you to establish sub-divisions in the tariff values for assessment of the said merchandise accordingly and hope same will meet with your favourable consideration.

Market Values of the Japanese Silk and the Suggestions for the Tariff Values of the same.

Japanese.	Present market value. Rs. A.	Average for last 11 months. Rs. A.	Tariff value suggested. Rs. A.
Filatures (Steam or Hand-reeled or re-reeled)—			
Up to 20/22 deniers, i.e., average 21 deniers	5 12	5 9	3 10
Above 20/22 deniers, i.e., average 21 deniers	5 2	5 0	3 0
Dupion Silks all kinds	3 12	3 12	2 4

(16) *Letter dated the 24th May, 1938, from Messrs. Karanjia Bros., Ltd., 17-19, Bomanji Master Road, Bombay.*

As desired by you I send you the names of prominent merchants dealing in Silk and Artificial Silk Yarn and Piece-goods.

Raw Silk, Artificial Silk Yarn and Staple Fibres.

Messrs. Nagindas Foolchand Chinoy,
 „ Rajaram Girdharilal,
 „ Gordhandas Nathalal,
 „ Sakalchand G. Shah,
 „ Gordhandas Ishwardas,
 „ Haji Hassan Dada,
 all of Tamba Kanta, Bombay.

Silk and Artificial Silk Piece-goods.

Messrs. Pohoomull Bros.,
 „ J. Kimatrai & Co.,
 „ J. Ramkishan Bros.,
 „ J. P. Jamnadas & Co.,
 „ M. N. Goghai & Co.,
 „ Rijhumal Bros.,
 „ K. Hassaram & Co.,
 „ E. F. Kavarana & Co.,
 „ Kaganmal Ramchand,
 „ Valiram Sons,
 „ Pravin & Co.,
 all of Silk Bazar, Kalbadevi, Bombay.

(17) *Letter dated the 21st July, 1938, from Messrs. Karanjia Bros., Ltd., Bombay.*

Please find enclosed herewith six copies of answers to the questionnaire regarding Protection to Sericultural Industry, to be answered by the Importers and Traders.

Subject:—QUESTIONNAIRE RE. PROTECTION TO SERICULTURAL INDUSTRY IN INDIA.

As desired by you we have the honour to reply to your questionnaire as follows:—

1. The foreign countries which compete most with Indian silk are China and Japan.

1. (a) The class of silk affected is filature silk.

2. (a) Canton filature 20/22 deniers Rs. 4-4 per lb. Japanese filature white 20/22 Rs. 5-8. Japanese filature yellow 20/22 Rs. 5-6. Kashmere filature yellow 20/22 Rs. 5-12.

2. (b) C.i.f. prices Rs. 330; Rs. 600 for Canton and Japanese filature respectively.

2. (c) Landing charges $\frac{1}{4}$ per cent., discount $1\frac{1}{4}$ per cent., and brokerage $\frac{1}{4}$ per cent.

3. Kashmere produces only yellow filatures and Mysore produces white filatures of inferior kind in negligible quantities.

4. The Indian silk is always dearer because of its small production. The foreign silk is cheaper because of its enormous production, natural climatic advantages, skilled labour, experience of hundreds of years and Government help.

5. The freight and shipping expenses from Japan to India do not come to more than Rs. 8 per picul Railway freight between Bombay and Madras, Calcutta and Benares comes to 1 anna per lb., i.e., about Rs. 8-8 per bale.

6. The foreign prices are entirely governed by the world demand and especially American demand which country consumes almost three-fourths of Japanese and Chinese exports. Although the silk are graded according to their quality no special class is manufactured for India and therefore, as stated above, the prices in Japan or China are entirely governed by foreign demand.

7. This country produces almost entirely silks of the yellow variety whilst a greater demand is for the white varieties. Therefore no comparison can be drawn between the white foreign varieties and the local yellow varieties. Even if compared with the foreign yellow variety the local silk falls short in quality because of its lack of proper re-reeling, gradation, etc. The quality could be improved if proper Government help is forthcoming as Mysore is trying at present.

8. The process of manufacture in India does not differ materially from other countries. The difference lies in proper equipments, efficiency and skilled labour.

9. As stated above the Indian manufacturer is at a disadvantage regarding machinery and labour. However, that is fully compensated by high customs duties on foreign silk.

10. It is impossible to forecast owing to the uncertain political and economic conditions of foreign countries.

11. The classifications and tariff conditions of imported raw silk are quite suitable and do not in any way operate to the disadvantage of the indigenous producer.

12. The present trend is definitely for a preference for filature silks. The handspun silk is being replaced by artificial silk yarn and staple fibre owing to the price factor.

13. The variation was due to natural rise of the market and not due to any change in the quality.

14. We do not think so.

15. Proper attention is always paid by foreign exporters to the requirements of Indian middlemen and consumers. However, that defect by the Indian producers can be easily rectified.

16. There is no change in the actual quality of the imported silks but all the old hand-reeled varieties have given place to filatures.

17. The importers sell either direct or through Indian commission houses according to the connections with the consumer.

18. Weavers generally obtain the raw materials from retail merchants or commission houses according to the quantity consumed. Mostly, and almost entirely the yarn is imported yarn, the price paid is not possible to state unless any specific variety is mentioned.

19. Manufacturers of silk goods wanting to reduce the cost of production are using staple fibre in preference to raw silk and what proportion of this staple fibre yarn is being consumed cannot be definitely mentioned. The source is the same as the source of obtaining other yarns, and approximate price of staple fibre is about Rs. 1-8 per lb. There is a tendency for the staple fibre to oust pure silk and it has already ousted spun silk yarn to a very large extent.

21. The performance of this operation is generally carried out by the weaver himself according to the convenience and space available.

22. No definite answer can be given to this question as it entirely depends on the quality of cloth manufactured.

23. Spun silk is generally used for spun crapes used for shirting and manufacturing suitings.

24. The sorting and grading must be done by a proper conditioning house and a certificate given, which would surely put the Indian silk on a par with foreign variety.

25. During the 5 years since the last Tariff Board inquiry nothing seems to have been done as regards increase of production or methods of selling Indian silks as stated in the query.

26. There seems no progress to have been made in this direction also.

27. The position is the same. Artificial silk yarn is gaining ground on account of its cheapness although that has had the beneficial effect of Indian capitalists taking to the manufacture of artificial silk goods employing a quite large number of workers.

28. The increased duty on imported spun silk has given complete protection to the Indian raw silk.

29. The reason Japan has gained ground in India is because Shanghai hand-reeled varieties have yielded to Japanese filature.

30. The protection to Indian silk and artificial silk industry is sufficient. However on account of smuggling this protection is of no avail.

31. No.

32. All artificial fancy goods heavily compete with the Indian made silk goods.

33. The factories using silk and spun silk are just able to manage owing to protective tariffs on cloth, however, they could do much better if the duty on imported silk was reduced. They prefer foreign silk because they are unable to obtain any good white variety of Indian silk and even the yellow variety is always higher in price than its foreign equivalents. Unless the price of Indian raw silk comes down, or the duty on imported raw silk is raised further by any chance, than the Indian manufacturers will not be able to do anything against the foreign cloth.

34. Although there has been an increase in the import of artificial silk yarn and a considerable increase in the manufacture of artificial cloth in India it has no connection with the fall in imports of silk fabrics because the

trade returns do not show how much silk piece-goods are re-exported and which are consequently smuggled into India. There is a tendency to produce a large quantity of silk piece-goods in India and that tendency would be insured if the duty on foreign silk was reduced or the Indian sericulturists supply silk at cheaper rates.

35. Since 1923 we have been drawing attention of the Government of India and the Central Board of Revenue against cases of smuggling through the Persian Gulf, Kathiawar ports and French and Portuguese territories in India. All informations regarding cases of smuggling are on record with the Government of India and the Central Board of Revenue.

(18) *Letter dated the 17th September, 1938, from Messrs. Kantilal & Co., Mulji Jetha Market, Chandra Chowk, Bombay.*

It has come to our knowledge that the Government of India have appointed a Board of Committee to consider and to take measures giving protection to National Industries in general and Handloom Industry in particular. No work, you will agree with us, will be more solid and really conducive to our country's efficiency and advancement than all such spade work always is.

We are dealing in this branch of business for the last many years and own many handloom factories in Mau and Azamgarh and Fyzabad Districts, which are the main centres for this trade, as you well know. You will therefore best realise and agree with us that we are the proper party who may be able to put before you all our grievances to consider with a view to your giving protection to this our National Industry.

By the bye, we may bring to your kind notice that as owing to the keen competition prevailing in the market as with that of the Japan and Mill Industry, the situation for this trade and Industry is at present very grave. Indeed, you will realise that if the matters go as they are, not only it will be a serious menace to this trade but the National Industry will be dislocated and hence you will observe that the special protection to this Industry is urgently needed.

As there is a very limited time at our disposal to put all our grievances before you, we shall be much obliged if you will kindly depute a responsible Officer before whom we may be able to place our grievances, or if you so desire we shall be pleased to call on you on any day convenient to you, on hearing from you in this matter.

(19) *Letter dated the 1st October, 1938, from Messrs. Kantilal & Co., Bombay.*

Re: PROTECTION TO HANDLOOM INDUSTRY.

Taking this opportunity, we thank you very much indeed for the interview you granted to us on the above subject and have much pleasure to hand you herewith copy of letter forwarded by us on behalf of the Piece-goods Merchants to Great Indian Peninsula Railway, as well as Bengal and North-Western Railway, in the above matter, during January last. We have to-day sent them reminders and will advise you further on hearing in this matter.

As regards your queries contained in the printed forms which you were good enough to hand over to us, we beg to write to inform you that we have enquired the necessary figures at our factory and will immediately let you have our detailed reply on receipt of the same. Kindly note.

By the bye, we may bring to your kind notice that in consideration of this our National Industry, you will indeed agree with us that the Railway should quote special station to station rates for good market centres of this commodity, which, as a matter of facts, are much more higher in comparison with other commodities and thus the protection is also needed on the other side from the Railways.

Letter from Messrs. Kantilal & Co., Piece-goods Merchants, Maunath Bhanjan, U. P. (Dist. Azamgarh), to the Chief Traffic Manager, B. & N.-W. Railway, Gorakhpur, dated January, 1938.

Re: TRANSPORT OF ARTIFICIAL SILK PIECE-GOODS FROM MAU JUNCTION AND TANDA TO BOMBAY, BOTH BY PARCEL SERVICE.

We have been asked by some prominent merchants dealing in the above class of goods, who are (including ourselves) the manufacturers thereof, to approach you with the following proposal and to request you kindly to communicate to us your final decision in the matter at the earliest possible date.

2. In our meeting held during the last month one of the members mooted a suggestion that the merchants dealing in this class of goods should have a "Motor Service" of their own for the transport of bales from Mau Junction and Tanda to Bombay, as it would not only be a quicker service but the expenses would also be moderate taking into consideration the existing rates of the Railways by "Parcel Service". We had a long discussion on this point and at the end it was unanimously agreed to that although heavy investments will have to be made, since it would be very profitable in the long run, we should arrange to have our own motor service, but at the same time it was also agreed to that before any action was taken in that direction, the Railway authorities might be requested to consider the advisability of granting a special rate from these two stations to Bombay, which if found advantageous and profitable, may be agreed to.

3. We have, therefore, to request you that every month not less than 3 tons of artificial silk piece-goods is received by us in Bombay by Parcel Service, the cost of transit incurred thereon comes to Rs. 260 per ton, excluding the cartage, etc., from the city to the stations and again from Victoria Terminus to our respective godowns in Bombay, whereas the goods weighing 1½ tons can be brought here at a cost of Rs. 125 or thereabout by motor service. The latter expenses require no more addition such as cartage, etc., as once the bales are loaded at both these cities in the godowns, they will right through be unloaded only at the godowns of the merchants concerned. We do not, therefore, think that it would be out of place if we were to mention that the saving thus effected would be appreciable, when we take into consideration the troubles the merchants are expected to share at the Booking stations, by way of observing all the technicalities, rules, conditions in booking, etc., etc. Even if we leave aside the question of incidental expenses, the net amount of Railway freight is much more higher than what the merchants are required to pay by "Motor Service", or, in other words, the latter practically comes to half of what he has to pay by the former.

4. Further more, our experience taken as a trial measure, shows that goods from these stations are available in Bombay by Motor lorries on every third day, whereas by your parcel service we can hardly get the goods even at the end of the sixth day, which has very often resulted in the merchants losing their customers by not being able to produce the goods on the fixed dates, irrespective of the fact that they were booked by the "Parcel Service", charges of which are very high.

5. In addition to the advantages of lesser expenses and quick deliveries of our goods from the aforesaid two stations, in the event of our introducing a "Motor Service" of our own, we will also be able to carry goods from Bombay intended for these two cities, as instead of running our lorries empty from Bombay on the return journey, we can most conveniently undertake to accept goods for despatch to Tandand Mau, which obviously means that the Railway will be a lesser of its revenues to a further extent. We may mention that the goods will be carried in at a much attractive rate, which will necessarily be much lesser than what the merchants are required to pay by the Rail route, not to speak of the less troubles and early deliveries the Bombay merchants will get by this arrangement. Once they would be

satisfied that our service would be a regular one, with great advantages and lesser expenses, we are sure, and we hope you too will agree, that the Railway will be deprived of its revenues to a very great extent, by this arrangement, because of the fact that not only the piece-goods traffic will be lost from these two stations, but any other goods from Bombay, intended for these two cities, will also be lost.

6. In these circumstances, we have to request you to please depute your responsible official to examine the prospects of this traffic and grant us at least 35 per cent. reduction in the existing parcel rates for this commodity, and also to take such measures as would cause speedy delivery in Bombay.

7. The merchants in their return have also permitted us to offer you on their behalf their assurance that if you were good enough to consider our proposal and comply with the request herein made, viz., a reduction of 35 per cent. in the existing parcel rates from these two stations only, then, the proposal of introduction of our own "Motor Service" would be dropped, "Sine Die".

8. We may also state for your information that most of the factories are working by handlooms and the articles manufactured as you well know, are Swadeshi one, and, us owing to the keen competition prevailing in the market as with that of Japan and Mill Industry, the situation for this trade and Industry, you will agree with us, is, at present, very grave. You will, therefore, realise that if the matters go as they are, not only it will be a serious menace to this trade but the National Industry will be dislocated, and hence, you will please observe that the reduction in freight charges is badly needed in the interest of all concerned and for the Industry itself.

9. If you would like to have any more details, would you be kind enough to depute your responsible representative to discuss this affair with us, along with other merchants, when we assure you that we will without hesitation, give him all the necessary help and material that might be required by you, in order that you might be able to give your considered opinion on this subject.

10. In conclusion we have to request you to please take a liberal view of the aforesaid facts and deal with the question in a businesslike manner, letting us hear as early as possible.

नमो भगवते वासुदेवाय

(20) Letter dated the 12th October, 1938, from Messrs. Kantilal & Co., Bombay.

Re: PROTECTION TO HANDLOOM INDUSTRY.

Further to our letter dated the 1st instant, as intimated to you that all our factories are situated at Tanda in Fyzabad District, and Mau in Azamgarh District, which are the main centres of this Industry as you well know.

Nearly half of the looms of the total number of factories are at present idle. A major portion of the looms are weaving pure silk and the remaining looms are weaving artificial silk goods.

Indeed, after 1st April, 1934, there was a temporary rise and good demand in this trade, but as a matter of fact, to-day is considerably reduced as it cannot compete with that of the foreign Imports.

Although merchants allow credit to weavers up to Rs. 25 for one month in general, but most of the weavers purchase their raw materials through the middlemen who buy from the bazar and thus the cost becomes higher to about two per cent.

Generally half of the yarn made from staple fibre yarn and the remaining half of the artificial silk is being used in manufacture. The artificial silk is foreign imported and the price varies as to the quality and quantity imported. Single yarn is being used for warp and weft and spun silk is particularly used in Sarees and Shirtings. The length and breadth of the finished article is 36" x 36" and one loom can produce 15 yards piece of 27" and 10 yards piece of 40" and its price is about 25 per cent. higher than the Mill Industry. All the necessary operations are generally carried out by the Weavers themselves except that of the Dyeing which is done by Washers. The Weavers are paid about anna one per yard.

The management is in the hands of the merchants, but they are losing money on account of cheap foreign imports and as such they are working in loss.

In consideration of this our National Industry, the Industry itself is needed immediate protection and what protection and the manner of making it available, it is that the Board is in a better position to judge, but indeed, you will agree with us that a level of adequate protection is one which is based on the possibility of returning six per cent. on the present value of the capital sunk in the Industry

(21) Letter No. G. 1084, dated the 28th July, 1938, from the Southern India Chamber of Commerce, Madras.

PROTECTION TO THE SERICULTURAL INDUSTRY—YOUR LETTER No. 544/A., DATED THE 24TH MAY, 1938.

The protection recommended by the previous Tariff Board was accepted by Government on a lower scale for five years from 1st April, 1934. The Board recommended a specific duty of Rs. 2-6 per lb., while the Indian Tariff (Textile Protection) Amendment Act, 1934, fixed an *ad valorem cum* specific duty which in practice has been totally ineffective. As against Rs. 2-6 per lb. recommended by the Board the actual duty that has been operative in practice was as follows:—

	Per lb.
	Rs. A.
Re-reeled	1 15
Filature	1 10
Hand reeled and spun	1 8
Dupion	1 5

2. The Classification of the tariff was defective; the *ad valorem cum* specific duty missed the mark and belied the original calculations owing to its susceptibility to price and exchange fluctuations. What was worse, such fluctuations in price and exchange could not be dealt with under the Safeguarding of Industries Act as it lapsed in the interval. In the result, far from diminishing the imports, the protective tariff synchronised with an increase of imports to India as follows:—

	1933-34 (Pre-Protection year).	1937-38 (4th year of protection).
	Lbs.	Lbs.
Raw silk and cocoons	2,379,197	2,535,274
Silk yarn	2,027,681	2,337,288

3. The only redeeming feature was the diminution of imports of silk piecegoods from 41,123,380 yards in 1933-34 to 22,871,425 yards in 1937-38. It must, however, be mentioned that the good effect of the fall in the

import of silk piecegoods was more than off-set by the tremendous increase in the import of staple fibre, and artificial silk yarn and piecegoods. Their import was as follows:—

	1933-34 (Pre-protection year).	1937-38 4th year of protection).
Staple fibre . . . .	...	2,681,935
Artificial silk yarn (lbs.)	9,808,919	31,589,038
Artificial silk piecegoods (yards)	40,897,628	89,694,938

4. To some extent artificial silk is replacing natural silk owing to the low purchasing power of the middle classes and the rapid increase of its import is fast becoming a menace to the sericultural industry as much as to the cotton textile industry. The only other change in the interval was the addition of 14 annas per lb. specific duty to the 25 per cent. *ad valorem* duty on spun silk. Its effect on import is not ascertainable as separate figures of import of spun silk are not published but the local demand for it has been stimulated by the establishment of a factory in the Mysore State. It is satisfactory to note that the price of silk waste has been improving from about 1 aana 2 pies per lb. in 1933-34 to about 5 annas at present. But the allied product of Madras, namely, eric cocoons, which is also a suitable raw material for the Mysore spun silk factory is neglected and it is only fair that as Mysore State benefits most in South India from the scheme of protection she should look upon eric cocoon supply of Madras with greater sympathy and agree to take it for a portion of her requirements of raw material.

5. Apart from the abovementioned progress in spun silk manufacture, there has been some progress in filature silk production in South India. The Kollagal Silk Filatures, Ltd. organised in 1937 extended the operation of an existing establishment. The Mysore Silk Filatures have also been opened and the operation of the Sri Ram Silk Throwing Factory of Mysore State has also been extended on a joint stock company basis. The rapid increase of power looms in the Mysore State is bound in due course to increase the marketing difficulties of handloom weavers who predominate in the economy of production in the Madras Presidency. The Tariff Board would be well-advised in examining closely how far the dependence of Mysore on the Madras market should be reconciled and regulated with the scheme of production of raw silk, including eric silk, and handloom silk of the Madras Presidency.

6. The defect in the classification adopted in the Tariff Schedule should be removed. The omnibus classification of silk from Japan under one item of "Japanese Filatures" has been operating very unfairly as in many cases the Customs authorities were driven to depend upon invoices, the avoidance of which is the object of the system of tariff values. The item might properly be split into:—

Japanese silk—

Re-reeled.

Steam filature—

Yellow—13/15, 20/22, etc.

White—13/15, 20/22, etc.

Thrown,

Hand-reeled,

Spun,

Mixed spun.

7. The practice of depending on invoice value for assessment of Customs duty is further complicated by the practice of import houses making their own invoices on which assessment is based with the consent and authority

of the Customs Authorities. The importance of tariff value is further enhanced by the report that the Government of Japan are still holding large stocks of silk to be released when they like and at prices which suit them, certain consignments of which being reported to be actually at some ports awaiting clearance on this day. This Chamber therefore emphasises that it would be best if assessment on invoice value is avoided altogether so long as the *ad valorem* basis is retained and any tariff values are adopted for the item at all.

8. Neither the mulberry acreage nor production of raw silk in the Madras Presidency received a stimulus from the present protective scheme. The acreage of mulberry dwindled from 7,900 acres in 1933-34 to 7,000 in 1937-38, and production of 107,000 lbs. raw silk in 1933-34 improved only to about 110,000 lbs. in 1937-38. The duty has succeeded in stopping import of cocoons from abroad and local price has improved from 3½ annas per lb. to 4½ annas per lb. at present. Whatever improvement of prices of local and imported qualities was seen in 1937 was entirely speculative and the present level of prices is practically due to the tremendous drop in import during the last 6 months by reason of the high tariff value of Rs. 4-12 adopted for Japanese filatures in the current year. In this connection, the Chamber would like to draw the attention of the Tariff Board to the fact that the index of prices published by the Department of Finance of the Government of Japan in the "Thirty-seventh Financial and Economic Annual of Japan" shows that the index for raw silk improved from 66 in 1934 to 91 in 1936, and that of floss silk improved from 120 in 1934 to 148 in 1936, while the same rise was not reflected in c.i.f. prices quoted for India, which points to sales having been effected below home prices. Attention of the Board may also be drawn to reports of fresh efforts being made by the Japanese Government to sustain their silk industry. It is reported that being faced with the problem of decreasing exports to the United States of America the Ministry of Agriculture and Forestry, Japan, have decided to introduce a new policy by which silk reelers would be encouraged to increase production of inferior raw silk for mixing with other yarn and to increase exports to countries other than the United States of America which takes only high grade raw silk. As a concrete measure the Ministry proposes to set aside 2.7 million yen as expenses for increasing export of raw silk and for developing new uses of silk.

9. Apart from the stimulus that the industry can receive from protective duties there are distinct benefits and facilities that could be provided. During the period of protection the Government of India Subvention scheme came into operation but the amount allocated to this Province was hardly Rs. 15,000 a year for supply of "cellular seed" and research in pebrine disease. There have been improvements in cultivating mulberry, cross-breeding worms, reeling machines methods, use of waste silk and so on. The absence of cheap Railway freight is a handicap to the distribution of seed from the Government farms. The absence of silk conditioning houses leads to nervousness and demoralisation of the market. The absence of any machinery to watch the trend of prices and foreign exchanges and the operation of the protective duties is a serious drawback. The extreme shortness of a five-period of protection is a definite stumbling block to any considerable reorganisation of the industry. It is suggested that the Tariff Board may be pleased to examine those considerations in detail.

10. This Chamber desires to express its disapproval of the terms of reference set out in the Commerce Department Resolution of the 9th April 1938, by virtue of which the Tariff Board are expected to temper recommendations with considerations of Government's revenue. They be Board cannot forget that the revenue derived from protective duties, it is true measure of their ineffectiveness and that it should not be allowed to bias the judgment of the Board. On the other hand, it is imperatively necessary that a good portion of the proceeds of the duties should be released for the benefit of sericulture in the Provinces.

11. As regards the duty that may be fixed this Chamber is of opinion that a simple specific duty would be the most effective and even unobjectionable from the point of view budgeting. The present market price of I quality charka silk is about Rs. 5-8 per lb., but it would never have sustained at that level had it not been for the fortuitous circumstance of the tariff value of Japanese filatures having been fixed for 1938 at Rs. 4-12 per lb., which has resulted in a momentary block to import. If, however, the market price should really inspire confidence in the rearsers and reelers an average market price of Rs. 5-12 per lb. should be assured. The c.i.f. Madras price of corresponding imported filature silk may be safely taken at Rs. 2-10 per lb., thereby leaving a margin of Rs. 3-2 per lb. to be covered by import duty. Indian Filature silk can sustain itself on the same margin against Japanese 20/22 Denier silk. The same specific duty would be required to be imposed on silk yarn and silk sewing thread. It is a deplorable fact that the Indian handloom silk weaving industry would now have to face not only imported fabrics but Indian power loom products. With a view to safeguard its future it would be necessary to raise the specific duty on silk fabrics by 50 per cent. so that the duty would be 50 per cent. *ad valorem plus* Re. 1-8 per lb. on pongee, satins, and taffetas, 50 per cent. *ad valorem plus* Rs. 2-4 per lb. on Fuji, Boseki and corded, 50 per cent. *ad valorem plus* Rs. 3 per lb. on crepes, georgettes and other worts. It would be advisable to retain the *ad valorem* duty as a closer division of classes is impracticable and a flat specific duty may fall lightly on the more costly fabrics. This Chamber would like to add that a check upon import of artificial silk yarn and piecegoods is becoming increasingly necessary and the omission of those articles from the Indo-Japanese Trade Agreement has both facilitated and rendered it necessary to deal with them at the hands of the Tariff Board. This Chamber would suggest that the specific duty on artificial silk yarn should be raised from 3 annas per lb. to 4 annas per lb., that on British artificial silk fabrics from 2½ annas per sq. yard to 3 annas and that on non-British from 4 annas per sq. yard to 4½ annas. There is no reason to increase the duty on mixed fabrics at present.

(22) Letter No. 819, dated the 31st July, 1938, from the Andhra Chamber of Commerce Ltd., 99, Armenian Street, Madras.

I have sent under separate post 5 copies of the Memorandum prepared by the Andhra Chamber of Commerce, Ltd., on "Protection to Sericultural Industry", and I request you to acknowledge receipt of the same.

Memorandum prepared by the Andhra Chamber of Commerce, Madras.

Subject:—PROTECTION TO SERICULTURAL INDUSTRY.

The Committee of the Andhra Chamber is of opinion that the sericultural industry is eminently fitted for protection. The incidence of taxation falls mainly upon the richer classes, who can well afford to bear increase taxation, while the benefits go predominantly to agriculturists to whom the sericultural industry is an important subsidiary occupation.

There can be no doubt that protective duties imposed in 1934 have been partially effective. But of late, there has been an increase of foreign imports thanks largely to Japanese activities.

Imports of raw silk which had declined in 1936-37 were again on the up-grade in 1937-38 and were highest in the last three years. On the other hand there has been a steady decline in the imports of silk yarn, such the rate of decline in the last year was not as great as it had been silk previous year. It is significant to note that though total imports was a rise, Japan has succeeded in increasing her sendings. As regards thing has hap, there was a large decline in 1936-37 but in 1937-38, there mostly due to increased imports from Japan. The same in the case of silk mixtures.

We have no means of knowing to what extent staple silk yarn has proved a rival to silk. Until the end of 1936-37, staple silk imports were not recorded separately. In 1937-38 the total imports of staple silk amounted to 2,681,935 lbs. valued at Rs. 21,38,445. It is difficult to say however how much of this amount has been utilised by the indigenous silk industry, since there is a considerable absorption of the article in the cotton mill industry.

The level of duties levied on spun silk which was formerly a serious rival to raw silk has been partially effective, as evidenced by the fact that imports of the commodity have declined steadily from 3,514,859 lbs. in 1935-36 to 1,584,298 lbs. in 1937-38. Art silk yarns and piecegoods are serious competitors to silk yarns and piecegoods. Art silk piecegoods also compete with cotton piecegoods. The imports of art silk yarns and piecegoods have been on the upgrade during the last three years. Imports of silk yarns increased from 14,911,162 lbs. in 1935-36 to 31,589,038 lbs. in 1937-38. There was a decline in the imports of art silk piecegoods in 1937-38 from the previous year, though the figure for the former year recorded an increase over that for 1935-36. Decline in Japanese imports has been the chief reason for this fall. On the other hand, there has been a steady increase in the imports of mixtures in the last three years.

According to the Bombay Silk Merchants' Association, the total production of the Indian sericultural industry does not exceed one tenth of the production of products connected with the industry and that it is therefore not fair to penalise the consumers in order to give protection to an industry the production of which they state is insignificant. The Committee of the Andhra Chamber however is not satisfied with this argument. Granted adequate production over a fairly long period, there seems to be a bright future for the Indian sericultural industry. If a similar argument to the one brought forward by the Bombay Silk Merchants' Association were to be applied to the sugar industry at the time when protection was granted to it, the phenomenal progress made by the sugar industry would not have taken place at all.

(23) Letter No. 12/166, dated the 1st August, 1938, from the Indian Chamber of Commerce, Tuticorin.

Reference:—YOUR LETTER No. 544/A, DATED THE 24TH MAY, 1938, AND No. 595, DATED THE 15TH JUNE, 1938, ENCLOSING QUESTIONNAIRES REGARDING THE SERICULTURAL INDUSTRY.

I am directed by my Committee to communicate their following observations on the subject of protection to the Sericulture Industry and incidentally the silk industry, as they are not replying the above which more concerns the actual importers, traders, and the industry itself.

In referring to the Tariff Board the question of protection afforded to the Sericultural Industry in India by the Indian Tariff (Textile Protection) Amendment Act, 1934, the resolution of the Commerce Department of the Government of India reads "The Tariff Board, in making its recommendations, will take into account all relevant considerations including the financial needs of the country and the dependence of the Government of India on import, export and excise duties for a large part of its revenue". My Committee regret very much that Government, instead of allowing the Tariff Board to investigate into the actual requirements of the industry and submit their views, have restricted the nature of their recommendations by introducing considerations of revenue in the terms of reference.

Further, my Committee wish to point out that in fixing the rates of duties lower than those recommended by the last Tariff Board after an exhaustive enquiry, the Government have not granted adequate protection to the Industry, as the imports of raw silk have only been on the increase and the production of raw silk in India has not also improved all round.

As such, the industry stands in need of proper protection to withstand foreign competition and consolidate its position.

Another important point which my Committee would like to bring to the notice of the Tariff Board is the likelihood of countries like Japan to depreciate their exchange and lower the prices of their silk and silk piece-goods to such a ridiculous extent as to nullify the protection granted by the Government to the indigenous industries. Hence, it is absolutely necessary that at least in the present instance when the Tariff Board have been charged with the duty of enquiring into the necessity, extent and period of protection, they should investigate the above contingencies also and provided for proper safeguards, so that what they actually grant by way of protection to the Industry, shall stand in spite of all adverse tactics adopted by countries dumping their goods in India.

(24) *Letter No. I. N. D-9, dated the 25th August, 1938, from the Bengal National Chamber of Commerce, 2, Royal Exchange Place, Calcutta.*

Subject:—SERICULTURE INDUSTRY.

I am directed by the Committee of the Bengal National Chamber of Commerce to send enclosed for the information and perusal of the Tariff Board their detailed replies to the General Questionnaire and the Questionnaire for Importers and Traders in connection with the problem of protection to the Indian Sericulture Industry. While the replies to the questions have been as fully elaborated as possible, the Committee consider it necessary to set forth in the following paragraphs certain general observations pertaining to the subject. I am to express the hope that the Board will give their careful consideration to the views expressed herein and also to the replies to the Questionnaire.

2. At the outset the Committee would stress that the Sericulture Industry, by its very nature, requires active and substantial help from the Government not only for its development but also for its maintenance. The Governments of all other silk producing countries of the world have recognised this and have been endeavouring to effect various improvements in the technique of production and also in the distribution of raw silk goods. Unfortunately, however, the Industry in India has not so far received adequate patronage and support from the Governments, either Central or Provincial, and has, as a consequence, been deteriorating for the last few years and is now almost on the verge of extinction, at least in this Province. The Committee would draw attention, in the first place, to the fact that the protection which was granted to the Industry by the Government of India in 1934 was much lower than what was recommended by the Tariff Board at the time. It need hardly be stressed that the whole purpose of giving protection to any industry is defeated if the duties are imposed at levels below what are adjudicated by an expert body like the Tariff Board to be necessary for the development of the industry. Sericulture Industry is no exception to this rule, and there can be no doubt that the existing protective duties have not enabled the Industry to gain a sound and stable footing. The Committee have not, in the detailed replies to the questionnaires, suggested any specific rates at which the import duties on various kinds of silk goods, both raw and manufactured, should be levied. They, however, trust that in recommending the duties the Board would take into consideration all relevant facts and figures and fix the rates at a level that will give effective protection to the industry.

3. In the second place, the Committee would point out that Sericulture Industry in Bengal, as has been mentioned in the replies, is not at all organised, and there is considerable room for improvement in all the stages of production. Cultivation of mulberry leaves, rearing of worms, reeling and weaving are all carried on under antiquated processes, while defective marketing system often deprives the producers from their legitimate

dues. It is necessary that people should be trained in up-to-date scientific methods, for the human factor, in both its qualitative and numerical aspect plays a very important role in the organisation of the silk industry. As a matter of fact, the prosperity of this industry depends in a very real sense on the availability in sufficient numbers of persons properly trained in the technique of production of raw silk and silk manufacture, and the Committee consider that adequate provision should be made for giving to people technical training in rearing, reeling and weaving.

4. There is considerable scope for improvement of the quality of cocoons and supply of silk worm eggs to the rearers. As mentioned in reply to Question 10, though the Government nurseries and rearers selected by the Government produce cocoons for the purpose of distribution by way of sale, the method has not been found to be of much use, as the supply is quite inadequate as compared with the requirements of the Province; and even in regard to the limited supply complaints are made that the same is not entirely free from defects and diseases. Attention was drawn by the Tariff Board in their last Report to the defective methods adopted in the production of the seed cocoons in Government nurseries and the Committee have no information as to whether the defects referred to by the Tariff Board have been rectified. Besides, as there is no legislation in Bengal prohibiting the use of diseased cocoons for productive purposes there can be no guarantee that even if the cocoons produced in Government nurseries are immune from all diseases, disease-free cocoons will be used freely by such rearers as cannot secure cocoons from Government nurseries. Other silk producing countries like Japan, China and Italy have obtained very satisfactory results by enacting suitable legislation prohibiting the use of diseased cocoons and controlling the supply of silk worm eggs and the Committee consider that similar steps should be taken in India also. In this connection the Committee would point out that while silk worms in India are mostly multivoltine the yield of raw silk and denierage are much lower than is the case in other silk producing countries. The Committee have been informed that univoltine species are reared in Japan any time of the year by means of cold storage and artificial hatching and they would, accordingly, request the Tariff Board to examine the feasibility and economic advantages of adopting such devices in India.

5. The Committee would emphasise that while adequate protection against imports from foreign countries is an essential condition for the development of Sericulture Industry, the imposition of high customs duties would not by itself lead to the development of the Industry in this country. As already mentioned, Sericulture Industry is, unlike other protected industries, not at all organised and antiquated methods are used in all the stages of production while the defective system of marketing deprives the producers, whether of cocoons, raw silk, yarn or piecegoods, of their legitimate share of profit. The Committee would stress that a more grant of protection without substantial assistance from the Government not merely in regard to the supply of capital, but also in respect of research and scientific developments and the employment of specially trained workers and experts would be of little avail. The Committee regret to note that the initiative that ought to have been taken by the Government in the matter of the development of the industry by arranging better supply of silk worm eggs, or silk cocoons, or improved mulberry plants, by arranging demonstrations of improved process of rearing, reeling and weaving, by providing proper educational facilities for the purpose has been found wanting in the past. Little financial assistance has been rendered by the Government to the producers, and the money spent for the development of the industry has been extremely inadequate as compared with its requirements. Reference may, in this connexion, be made to the condition in Japan, a country with an area approximately equal to that of Bengal, where the Government spend annually about Rs. 1,20,00,000 and the various Prefectures together spend double this amount for the development of the Sericulture industry. The Committee would draw attention to the fact

that twenty-five years ago Japan used to supply about 18 per cent. of the world demand; there has since been tremendous improvement in all the stages of silk manufacture, both in respect of quality and quantity, and Japan now supplies about 76 per cent. of the total world demand, and there is no reason why a powerful drive given both by the Central and Provincial Governments should not enable the Sericulture Industry in India at least to face the competition from foreign countries. What is necessary to place the industry on a sound and stable footing may be briefly summarised as follows:—

- (a) Encouragement should be given for the cultivation of sufficient quantity of mulberry leaves of the requisite quality and apart from the supply of diseased-free seed cocoons or silk worm eggs to which reference has been made in the previous paragraph, rearers should be trained in up-to-date scientific methods and encouraged to use efficient tools and implements;
- (b) Processes of reeling are also antiquated and it is necessary that power driven machine should be set up in the Province for the purpose. At present reeling is done in Bengal in country ghais but the Committee have been informed that as long as the supply of sufficient quantity of standardised and good quality cocoons is not ensured, it would not be economic to start reeling in power driven filature machine; evidently, for mechanical reeling it will also be necessary to provide suitable training to reelers;
- (c) In the same manner and for the same reason encouragement should be given to the establishment of power driven looms in the Province for the production of silk goods;
- (d) Sericulture and Silk Technological Institutes should be established at different centres and provision should be made for suitable training and researches in all branches of the industry;
- (e) The marketing organisation at each successive stage should be thoroughly over-hauled and steps should be taken to ensure that producers obtain their legitimate dues after meeting all expenses;
- (f) Adequate financial help should be provided to the rearers, reelers and weavers in order that they may undertake more costly and up-to-date methods and also to enable them to hold their stocks till fair prices are obtainable.

7. The Committee recognise that in a poor country like India the prospect of the Sericulture Industry will be considerably restricted by the possibility of using imported artificial silk goods. Even so they feel that the demand for pure silk goods will continue to be quite large and to that extent Sericulture has yet a wide market to tap as will be evident from the table of imports of pure silk goods during the last few years.

Imports of Silk goods during the quinquennium ending 1936-37.

	(In lakhs of Rupees.)				
	1932-33	1933-34	1934-35	1935-36	1936-37
Raw Silk	1,17	72	57	58	65
Silk manufacture (including silk yarn, etc.) . . .	3,16	2,87	2,80	2,20	1,77
Artificial Silk	4,16	2,74	3,59	3,16	3,86

Besides, even apart from the ordinary use of silk goods it is possible for a well developed Sericulture Industry to cater to various industrial uses such as the production of embroideries, hosiery, insulating cables for electrical purposes, silk cartridge bags, balloons, parachutes, etc.

8. In drawing attention to the importance and potentialities of the Industry and also to its present defects and requirements, the Committee

would refer to the fact that these have very recently come to be recognised by the Government of Bengal and have actuated them to adopt certain measures of improvement the results of which cannot be fully assessed just yet. For the details of such measures a reference may be made to the Industries Department of this Province. While the Committee appreciate the action of the Department, belated as it has been, they cannot too strongly urge the point that the renewal of protection to the Industry should be granted for a sufficiently long period, if the necessary enterprise and enthusiasm of the Provincial Government so essential to the rehabilitation of the Industry, have to be sustained. Else all the pressure brought upon the Provincial Governments for the adoption of further measures of improvement would be of no avail, if the very future outlook of the Industry is allowed to remain in a state of uncertainty owing to the grant of protection for an unduly short period.

Enclosure I.

Replies to the General Questionnaire issued by the Tariff Board.

1. So far as the Chamber has been able to ascertain, not much progress has been made in regard to the development of the Sericulture Industry in Bengal since protection was granted in 1934. The industry is at present located in the districts of Maldah, Murshidabad, Bankura, Rajshahi and Birbhum in Bengal.

It will be found from the monograph published by the Government that in 1901 1,31,000 acres or about 3,93,000 bighas of land were under mulberry cultivation. Due to degeneration and want of improvement the area was reduced to 78,000 bighas by 1931; there has since been a further reduction, and at the present moment only about 63,000 bighas of land are under cultivation of mulberry.

With the falling of acreage under mulberry cultivation, a large number of persons has been forced out of the rearing and reeling business. It is extremely doubtful if the industry to-day provides the sole and exclusive occupation of any section of the people in the silk districts of Bengal. Those partly dependent on it have been roughly estimated at 10,000, of whom about 2,000 are (partly) dependent on reeling.

2. Sericulture is carried on purely as a cottage industry, and as a sideline of agriculture in this Province. The economic condition not only of the agriculturists but also of others who are connected with the different stages of the industry is thus very materially dependent on its prosperity. It is, however, suffering considerable handicaps owing to lack of proper organisation, inadequacy of financial assistance and defective marketing system. The industry at present is mostly in the hands of illiterate persons and is somehow managed by rearers, reelers and weavers whose only equipment in this respect is their traditional connexion with the industry. They lack scientific knowledge and training in up-to-date methods of production, and in this regard special importance has to be attached to the supply of better species of hybridised mulberries and disease-free silk worm eggs from Government nurseries at a sufficiently low cost and also to the grant of subsidies by the Government for effecting improvements and making new developments. The Chamber has received complaints from silk interests connected with it that the existing Government nurseries in this province are not in a position to supply the entire demand of seed cocoons, while the quality of the seeds supplied also is not of the requisite standard.

There is no organisation regarding finance and marketing, and the rearers, reelers and weavers being mostly poor are in the clutches of the money-lending jobbers who appropriate to themselves the major share of the profits of the industry allowing bare subsistence wages to the actual rearers. Reelers generally purchase cocoons from rearers who have to be paid in cash, and weavers are entirely in the hands of middlemen.

3. It has been mentioned in answer to Q. 1 that Bengal has 63,000 bighas of land under mulberry cultivation. The yield of leaves per bigha is estimated at about 60 maunds providing sustenance to $1\frac{1}{2}$ maunds of cocoons, which in their turn yield $3\frac{1}{2}$ seers of raw silk. The percentage of raw silk is only 6 per cent. If proper steps are taken for improving the quality of the mulberry leaves, the yield may be very substantially increased, even a cent. per cent. increase being estimated by some experts. If, again, the quality of the silk worms are improved and regenerated, it should be possible to obtain a much larger yield of raw silk, which has in fact been raised to the level of 15 per cent. in China and Japan.

The price of cocoons varies from Rs. 14 to Rs. 20 per maund.

The Chamber has been informed that the production of cocoons can be increased many times over—going up to even a lakh of maunds per year—if the industry is properly organised. It is essential for this purpose that the rearers should be protected against failure of their crop and should besides be enabled to sell their products easily and quickly.

4 & 5. In Bengal mostly *Nistari* and *Chotopolu* of multivoltine species are reared, and though *Barapolu* was reared in the past, it does not seem to have been successful from past experience. The Burmese *Nistid* and *Nismo* species are being experimented upon by the Sericulture Department, but no definite opinion can yet be given on the subject. The Chamber is informed that the *Nistari* or *Chotopolu* yields about 1.3 to 1.5 denier with a filament length of about 250 yards, whereas Japanese, Chinese or European species yield about 2.8 to 3 denier and a filament length of about 900 yards, —a fact, which suggests a very plausible reason for the superior competitive strength of the Japanese and Chinese Silk.

6. The cost of constructing a rearing house with equipment is estimated at about Rs. 150 to Rs. 200. Every year expenses have to be incurred on papers, disinfectants such as formalin, nets, straws, charcoals, if rearing is done in the winter and other petty necessities, the cost of which is very little.

7. The Chamber has no definite information on this point, but it appears from the figures supplied to the Chamber that both in respect of the length of filament and denier, the results obtained from *Nistid* and *Nismo* are much more satisfactory than those obtained from *Nistari* and *Chhotopolu*.

8. Practically no improved method in rearing has been adopted so far in Bengal. It is necessary that scientific knowledge regarding proper rearing methods, temperature and humidity percentage, preservation of mulberry leaves, disinfecting of rearing rooms and tools, clearing of bed and other conditions, symptoms of diseases and their preventive methods should be imparted to the rearers by practical demonstration by slides and lectures in rearing centres. The Chamber understands that the Department of Industries, Bengal, is at present negotiating with the University of Calcutta in regard to the production of suitable type of mulberry leaves, and also in regard to the quality of the races of worms.

9. Worms are generally reared from local seeds. The production of seed is not organised with any definite aim of standardisation and unification but Government nurseries produce cocoons for distribution among the rearers. The number of such seed cocoons is however very small, a large percentage being produced by the rearers themselves. No control is at present exercised over the production of seeds which require proper development.

10. The Government nurseries and rearers selected by the Government make cocoons for seed purpose. This system has not, however, proved very successful. The Chamber has been informed that pebrine is sometimes found even in these cocoons during the course of rearing, while the method adopted by the Government is considered by the ordinary rearers to be defective. There is no legislation, at least in Bengal, for the production of disease-free cocoons. Other silk producing countries like Japan, China and Italy are

reported to have obtained very satisfactory results by enacting suitable legislation.

11. Worms are mostly multivoltine and 5 or 6 broods are raised every year. About 40,000 eggs are produced from an ounce of seed. From eggs of really good quality 95 per cent. hatch out and make into cocoons.

12. *Nistid* and *Nismo* worms which have been lately introduced, undoubtedly belong to a better race. Experiments are still going on with those worms, and it is too early to say whether these experiments would prove a success.

13. Government nurseries use microscope for examining silk worm eggs and moth and to find out if they are free from pehrine diseases. Common rearers, however, do not take any steps in this direction, while a high percentage of pebre is reported to be found even in nursery seeds, when examined. It is essential that all possible precautions and preventive measures should be adopted on a scientific basis to combat pehrine, as the disease is not only highly infectious but is inherited by the progeny from the parent moths.

14. It is estimated that normally about a quarter of the worms are lost in Bengal due to diseases, though last year there was a utter failure in the silk crop in many silk districts of this Province. When there is an epidemic, most of the crop is lost, as the rearers have neither the means nor any scientific training for dealing with the situation.

15. The silk worms are fed on Mulberry leaves. Some persons cultivate mulberry plants on their own land, while in some cases plants are grown on leased lands; some breeders also buy leaves. The rent of mulberry lands in almost all the cases is extremely high, having been fixed at a time when Bengal silk fetched high prices.

If scientific method is adopted, the initial cost of cultivation would be not less than Rs. 200 and the recurring expenditure about Rs. 75 per acre per year. But as already stressed, scientific methods are adopted in very few cases, and it often happens that the rearers cultivate their lands themselves on antiquated methods; the average cost in these cases is Rs. 30 to 40 per acre per annum.

Generally rearers use a kind of water weeds extensively for manuring Mulberry plantation. Besides this, they also earth up the rows of Mulberries every year.

Tree Mulberries are planted about 10 feet apart and bush Mulberries are planted in rows at 18 to 26 inches apart.

The yield of leaf from tree plantation is about 1 maund per tree per year, and that from bush plantation from 50-60 maunds per higha per year. The Chamber has been informed that if suitable manures are used, the yield of leaves may be doubled. The present form of bush plantation having greatly deteriorated cannot give the desired yield; it is, therefore, necessary that better bush varieties should be introduced.

One of the great advantages of Mulberry plantation is that it is not planted every year as in the case of other crops. Once it is planted, it does not usually die for a number of years. With proper earthening and cultivation, the bushes successfully yield leaves for about 28 years, while trees give good yields from the 6th year to the 40th year and in some cases up to the 46th year; afterwards, for both bushes and trees replantation is required.

The quantity of leaves necessary to rear one ounce of layings is estimated on an average, from 25 to 40 maunds per crop, the average cost incurred by the breeders being about a rupee per maund.

16. (a) Tree Mulberry has been introduced to reduce the cost, but is not yet reported to have produced any effective results.

(b) The present hush form is much degenerated and improperly maintained, and has considerable scope for improvement. Bush form of cultivation is advantageous from the point of quick supply and it gives a larger

number of crops than the tree form. But under the existing form of bush cultivation only 5 or 6 crops are obtained, while the quality of the leaves is also reported to be much below par.

17. (i) During the last five years, the rate at which excess mulberry, i.e., the surplus over and above the requirements of the cultivator-rearers, was sold varied from Rs. 1 to Rs. 1-8 per maund.

(ii) Formerly mulberry cultivation was a profitable business, and there was quite a large number of Mulberry cultivators who used to sell their products to rearers. The extent of mulberry cultivation exclusively for purpose of selling is, however, practically *nil* now, and only excess mulberry leaves of particular rearers are sold at present. The yield is poor owing to the continued neglect and no effort being made to improve the quality. This deterioration in the quality and also the quantity has naturally affected the financial condition of the rearers.

18. The present position is just the same as was found by the Tariff Board on the previous occasion.

19. No attempt has been made to improve either the quantity or the quality of the food stuff of silk worms. On the contrary, mulberry crops have been replaced by jute cultivation.

20. No improvement has been noticed in regard to any of these matters.

21. Silk worms in India, even univoltino, have much degenerated and the yield of raw silk and denierage are also much lower than European, Japanese or Chinese races. The present yield of cocoons is about 16 seers on an average from an ounce of seed which require about 16 maunds of leaves. So far as the Chamber has been able to ascertain, no improvement has been effected in this regard during the last five years. The Chamber understands that the univoltino species are reared in Japan any time of the year by means of cold storage and artificial hatching, and it is inclined to believe that the same methods may be adopted in India as well with equally good result.

22. The Chamber understands that certain experiments in this regard are being undertaken by the Department of Industries, Bengal.

24. The price of cocoons per maund varied during the last few years between Rs. 14 and Rs. 20.

25. The breeder sells his cocoons, and has to sell at once irrespective of the state of markets as he cannot keep them till prices suit him.

The average yield of raw silk is about 6 lbs. and that of chasam from 4 to 6 lbs. from 100 lbs. of cocoon. The price of 100 lbs. cocoons is on an average Rs. 25, that of 6 lbs. of raw silk about Rs. 30 and that of 4 lbs. of chasam about Re. 1.

The cocoons can be stored in proper condition by stifling, and store houses with stifling arrangements should be started with Government assistance. It should, however, be pointed out that the rearers can hold the cocoons in the hope of getting better prices, only if arrangements are made for adequate financial assistance either from banks or from the Government.

26. There is at present no power-driven machinery in Bengal. The power-driven filature machines that were set up in the Province during the days of the East Indian Company and were in operation even 15 years ago have all been closed down owing to the want of supply of sufficient quantity of standardised and good quality cocoons.

27. On an average about a thousand maunds of raw silk has been reeled during the last five years.

The number of cocoons necessary to produce a pound of raw silk is given below:—

Nistari and Chhotopolu 8 kahans (8 × 16 × 80)

Nistid and Nismo 4 kahans (4 × 16 × 80)

These results are obtained when silk is reeled in country ghai. The outturn from country ghais is much larger than from filatures, but the increase in the quantity is more than offset by the deterioration in the quality.

The Chamber understands that Japanese improved univoltine or Italian univoltine cocoons produce about 75 grams of raw silk from 300 cocoons.

28. The old antiquated methods that are prevalent in some parts of Bengal require very little initial outlay; the cost does not usually exceed Rs. 6 or Rs. 8. But a little improved country ghai with two basins on raised platform, necessary equipments and back reel would, it is estimated, cost approximately Rs. 50 to Rs. 60. These basins generally last for about 10 years, but the back reel and other parts require occasional replacements. The annual recurring expenditure for a pair of basins would be about Rs. 6.

The outturn of two basins is estimated at about half a seer of raw silk per day of 8 hours, but this is much inferior in quality to filature silk.

29. The following figures are given for reeling one seer (two pounds) of silk in a country ghai:—

	Rs. a.
Cost of cocoons	8 0
Cost of labour	1 12
Fuel, supervision, water, soap, etc.	0 2
Establishment and Selling expenses	0 8
Total	10 6

Filature will never be a paying proposition from commercial standpoint, so long as the yield of the cocoon is not improved. If necessary improvements are made, filature can be equally successful in India as it has been in Japan or China as the cost of labour is cheaper in India.

30. Indian filatures have to suffer considerable disadvantage, owing to the inferior quality of Indian cocoons, as compared with those of Japan, China and other silk producing countries of the world, and also because the cost of electric power is much lower in these latter countries. Lack of experts in reeling industry is another factor which imposes considerable handicaps on the Indian filatures. The opening of suitable training institutions may remove this handicap.

31. Yes; 200 basins would serve the purpose of a filature factory well from the standpoint of establishment, overhead charges, fuel and organisation cost, provided sufficient cocoons are available to feed the filature. In the present condition of the Silk industry of Bengal, however, a 50 to 100 basin unit may be said to be advantageous under certain conditions. The quantity of cocoons available is so little that unless production is properly organised and both the quantity and the quality of cocoons produced are improved, a larger unit will be of no avail.

32. The quantity of raw silk produced by each filature unit depends on the quantity and quality of raw silk in cocoons and on the skill of the reeler. In Japan, China and Europe, where 13 to 15 per cent. of raw silk is obtained from cocoons, each filature machine can, it is estimated, produce 70 to 80 grams of 21 denier raw silk in 9 hours, but in India it is not possible to run a filature with the degenerated cocoons, which give an outturn of only about 30 grams of raw silk and involve higher labour charges.

34. Very little supply of skilled labour in Filature is available as there is no arrangement for training in this line. An untrained labour may acquire minimum skill within three months.

35. (i) Reelers in a country ghai are paid from 3 annas 6 pies to 4 annas por day and assistant boys are paid from 1 anna 6 pies to 2 annas.

(3) (i) Hitherto there was very little facility for training in reeling. Recently, however, a reeling school has been started at Maldah.

(ii) In rearing, there is practically no school or institution for imparting the necessary training. About 12 to 16 boys are annually taken in the two Government nurseries for practical training; such an arrangement can hardly be regarded as satisfactory.

(iii) Nil.

41. There is no arrangement for mill twisting in Bengal, all processes are done by hands:—

(1) price of raw silk varies from Rs. 9 to Rs. 12 per seer.

(2) twisting and winding cost about Re. 1 per seer.

(3) the cost of boiling off series, from 6 annas to 8 annas.

42. The defects and blemishes with regard to the reeling of silk to which the Tariff Board had made reference have not been remedied. Re-reeling is not practised in Bengal. European factories used to re-reel when they used to do business here.

43. The cost of re-reeling done in country process is Re. 1 per seer. The loss per seer is about 2½ tolas.

44. Practically no silk is re-reeled in Bengal at present, though it used to be done formerly, when there were filature factories in Bengal.

45. Bengal silk is solely used by weavers for making cloths of different varieties.

The possible industrial use of raw silk are as follows:—cloths, embroideries, hosiery, cable insulators for electric purposes, silk cartridge bags, balloons parachutes, various surgical uses, etc.

As a matter of fact various industrial goods of the sort mentioned are being produced in other countries and it is necessary that assistance should be rendered both by the Central and Provincial Governments to the producers in order that such goods may be manufactured in this country at a reasonable profit. It is also necessary that there should be proper arrangements for research in this respect.

46. Bengal has immense potentialities for the production of silk of any quantity, provided sufficient encouragement is given to the industry and adequate protection is granted against foreign imports. During the days of the East Indian Company not only was the bulk of the home demand met by the total quantity produced within the Province, but even about 70 to 80 per cent. of the total Indian export of silk goods used to be sent from Bengal. If the industry is properly organised, there is every reason to hope for a revival of the industry.

47. 25 per cent. of the silk produced in Bengal is consumed within the Province, and the rest sold in Bombay and Madras. The quantity of Bengal silk exported abroad is nil; chusan or waste silk was formerly exported to England, France and Italy, but not now.

Country ghai reellers sell their products direct to the weavers, but factory owners sell through agents.

48. The establishment of a Conditioning House may help the industry if it is properly run by a trained expert and run on proper lines. But unless the Silk industry is improved, standardised and the efforts of the Government are directed to produce larger quantity and better quality of graded raw silk, India will never be in a position to export raw silk. The want of a proper Conditioning House is not the only handicap in the matter of export of raw silk from India to foreign countries.

50. If special freight rates are not allowed to Indian silk, it will not be possible to compete with imported silk even with the help of a protective tariff, as the markets are mostly situated at a distance, and freight rates play a very important part in the movement of the goods.

51. The situation is the same as it was when the Tariff Board last reported, and no facilities for sorting and grading are now provided. The urgency of making suitable provisions for this purpose can be hardly over-estimated.

52. The industry lacks organisation and unfortunately no statistics are available from the Department of Sericulture or the Department of Commercial Intelligence and Statistics. It is not possible for this reason to prepare a Statement of the prices obtained by the reelers. The services of the various district administrative heads should be utilised for this purpose as is done in the case of jute.

54. Thrown silk or re-reeled imported silk are in demand by the handloom weavers. Spun silk or artificial silk are also in much demand as the Indian supply of raw silk is quite inadequate to meet the home demand. India requires about 45 million lbs. of raw silk, but is able to produce only about 21 million lbs.

55. Artificial silk is so cheap that it is not possible for a product like silk raised by rearing and produced by reeling to compete with the former. But there will always be a demand for pure silk not only for purpose of direct consumption and also for the various industrial uses of silk goods to which reference has been made in answer to Q. 45.

57. Imported silk is superior to Indian silk in colour, winding quality, neatness and cleanliness, but not in any other respect. The imported silk being uniform, clean and re-reeled, the wastage is less and many processes in weaving are eliminated, which saves a considerable labour cost. These factors have led to the use of foreign silk to a great extent. Apart from the internal demand of Bengal, the Benaras weavers used to buy raw silk from Bengal worth about Rs. 8 lakhs. But this is no longer the case, and Benaras weavers now obtain their requirements from foreign countries. Bengal weavers have followed suit to a great extent.

59. Tassar, Muga and Eri silk are facing serious competition from imported artificial silk yarn, spun or other yarn and other textile fabrics, the imports of which have steadily increased.

60. So far as the Chamber is aware, no silk waste is imported by India, as there is no silk spinning factory.

61. The percentage of waste is about 50.

62. Silk waste should be utilised in manufacturing spun silk yarn and other by-products.

There is at present no internal demand for silk waste, while there has been recently considerable decrease in the European demand for silk waste, with the result that the price of the commodity has fallen about Rs. 8 per maund.

63. Nothing practically has been done.

64. None to the knowledge of the Chamber.

65. Almost all the main parts of filature can be manufactured in India. They are cheaper than imported machinery. Certain parts, such as glass, hooks catches, etc., have of course to be imported from abroad, as these latter are not at present produced within the country.

The Government should help the installation of a spinning factory by granting subsidies. The cotton mills can also start the work as a side line.

69. (a) It is necessary to grant adequate protection both to raw and manufactured silk. The amount of protection should be determined by the Tariff Board after careful investigation into all the aspects of the problem.

(b) The protection should mainly be granted in the form of import duty, but the Chamber would request the Tariff Board to consider whether the situation does not call for direct financial assistance, in the form of subsidies, both by the Central and Provincial Governments for the development of the industry on proper lines.

(c) Protection should be granted for an adequate period, at least for a term of 10 years for the present. The experience of the last 5 years amply shows that the progress achieved has been very slow and that the fullest advantage has not been taken of the protection granted in 1934. While it is necessary that greater initiative should be taken in regard to the development of the industry by the Provincial Governments, the Chamber is also of opinion that the indigenous producers of raw and pure silk should be given adequate time for stabilising their position and organising the industry.

70. Both the silk textile industry and the hand-loom industry will benefit by the grant of adequate protection. If the Sericulture industry is properly organised, it would give employment to a large number of people.

72. The protection granted in 1934 has not been beneficial to any great extent, as the duties which were imposed by the Government on the import of silk goods were much below those recommended by the Tariff Board.

Enclosure II.

Replies to the Questionnaire for Importers and Traders.

1. Silk imported from Japan and China are competing most with Bengal Silk in almost all the markets and particularly in respect of piecegoods, sarees and dress lengths. Filature silk, artificial and spun silk compete most with Bengal silk.

4. The imported silk of a particular class is cheaper than the indigenous product. The reason of this difference is that the cost price of Bengal silk cannot be reduced to the level of imported silk.

6. The Chamber has no information on this point.

7. Bengal silk is better than the imported stuff in certain respects it is for instance more durable and it possesses better lustre, while its tenacity is also greater. On the other hand, it is inferior in regard to finish, neatness and cleanliness. Bengal silk could command the same price as that imported from abroad, if the finish were improved by way of uniform reeling and re-reeling. The quantity of silk in cocoons should also be increased, as otherwise the use of filatures would never be a paying proposition.

8. In all foreign countries, the industry is well organised and maintains uniform standard. Silk is reeled in filatures, cocoons are stifed, and better methods adopted for preserving them and keeping their properties intact.

9. Yes; India is at a disadvantage in respect of all the factors mentioned in the question, particularly in regard to the quality of materials available, the supply of efficient labour, railway freight and plant and machinery.

10. Pure silk will face serious competition from artificial silk.

12. It is a fact that filature silk is preferred to the country ghaz silk. India at present is unable to meet the entire home demand for raw silk by her own production, while the comparative cheapness of artificial silk has been responsible for the fact that weavers are using it in increasing quantities.

13. The rise was temporary due to the inadequate supply of cocoons in Bengal on account of the failure of cocoon crop.

14. Whatever might be the nature and the degree of financial facilities obtained by the exporting houses in their own country, it is certain that the industry in India is suffering terribly from financial stringency, and lack of organisation.

15. It is a fact that exporters pay great attention to the requirements of Indian middlemen in regard to matters of quality, finish and packing. This explains the keenness of the competition.

16. No marked change has taken place in recent years in the quality of imported silk.

17. Silk merchants sell to the weavers through retailers.

18. Weavers purchase imported silk from retail dealers and Bengal silk from actual reelers direct. Raw silk used is both indigenous and imported, while spun silk is wholly imported. The sale price of imported raw silk in 1937-38 was on an average Rs. 5-8 a lb., that of the spun silk Rs. 4-8 a lb., and that of artificial silk yarn only 14 annas a lb.

19. It is reported that in some centres staple fibre is used for mixed suitings.

20. Though staple fibre yarn does not seriously compete with natural silk, artificial silk yarn may be a cause of greater anxiety in coming years.

21. (i) Twisting and winding are done by skilled labour and not by weavers.

(ii) Boiling off is done by weavers.

(iii) Simple dying work is done by weavers themselves, the rest has to be done by experts.

(iv) Warping and doubling are done by weavers.

22. Twisted silk and thrown silk are used in the warp and loose silk is mostly used for weft.

23. Spun silk is used for mixed stuff or pure suitings or shirtings.

25. Present position is just the same as it was in 1933. No serious effort appears to have been made to remedy these defects.

26. No improvement has been made in the method of re-reeling. Though some people have started the reeling work with the object of producing uniform yarn, there is shortage of filament and denierage in cocoons.

27. It will be clear from the following figures that the artificial silk yarn and artificial silk fabrics are gaining steady market in India on account of their cheapness and that they are ousting Indian silk:—

Import of Artificial and other yarn and Textile Fabrics.

(In lakhs of Rupees).

1932-33	1933-34	1934-35	1935-36	1936-37
4.16	2.74	3.59	3.16	3.86

28. Spun silk seriously competes with Indian raw silk even now. The present rate of duty is quite inadequate to protect the interest of the Indian silk industry.

29. There is a greater demand of raw silk for weaving which India is unable to meet, whereas Japan is in a position to produce pure and artificial silk of better grade at a lower cost. Moreover it is found that the average of the quantity of imported silk remained the same after the imposition of tariff as it was before, although the price was almost halved. This position sufficiently explains that the internal demand remained the same.

30. Silk yarn and silk cloth.

31. As the purchasing power of the Indian public has been considerably reduced owing to widespread economic distress, the consumers naturally prefer to go in for less costly things.

33. Not any in Bengal.

34. Though there has been a steady fall in import of raw silk or silk goods since 1932-33, raw silk worth Rs. 6,41,41,517 was imported in the year 1937-38. The object was evidently to manufacture larger quantity of silk goods.

(25) *Letter No. Ind. 9, dated the 26th October, 1938, from the Bengal National Chamber of Commerce, Calcutta.*

Subject: SERICULTURE ENQUIRY.

With reference to the oral evidence tendered by the representatives of this Chamber before the Tariff Board on the 21st October, 1938, I am directed to send enclosed copy of a note received in this office from Mr. Annada Prasad Choudhury, Secretary of the Bengal Branch of the All-India Spinners' Association, with a request to forward the same to the Tariff Board. I am to draw your attention to the fact that the note covers points on which further information was sought by the Tariff Board in the course of the oral evidence tendered by the representatives of the Chamber.

Submitted by Shri Annada Prasad Choudhury, Secretary of the Bengal Branch of the All-India Spinners' Association to the Tariff Board regarding Sericulture Industry.

The All-India Spinners' Association, having its Headquarters at Ahmedabad, is an autonomous body created by the Indian National Congress for encouraging hand spinning and hand weaving in the country. It is a benevolent institution registered under Act 21 of 1860. Prior to 1936, its activities in connection with the silk industry in Bengal were only to inspect the work and the accounts of certain merchants and issue certificates to them to indicate that their articles were hand woven with hand reeled or hand spun Bengal silk. It was represented to us in 1936 that the acreage of mulberry in Bengal had fallen from 9,247 in 1928-29 to 7,549 in 1935-36 and number of persons depending upon rearing fell from 1,51,000 to 78,700 during the same period. With a view to give an impetus to the industry with the limited resources at our command we tried from 1936 onwards to establish direct contact with the artisans connected with the different processes of manufacture—from mulberry cultivation, rearing of silkworms, reeling and weaving and organisation of sales of finished fabrics. It has been our endeavour to study the different stages of manufacture at first hand and fix level of wages or prices which can just keep the industry going and then try to introduce more efficient methods of production both for cheapening costs and for increasing the income of the worker.

During the year 1937 and up to August, 1938, we purchased in Malda district alone 137,275 lbs. of cocoons for Rs. 41,219. The average rate per pound of cocoons worked out to 4·8 annas. So also, we got 7,44½ lbs. of raw silk reeled from the above quantity of cocoons for a total cost of Rs. 52,379. After having deducted Rs. 4 for the value of the reeling waste per pound of silk reeled the rate per pound of raw silk works out to Rs. 6-12-6. From our own experience and from a report of the Sericulture Department we have found that our prices have given some impetus to the industry in Malda district.

The sphere of work of the Association is, however, limited. Our friends and patrons who want genuine Indian silks with Indian yarn, who have the development of the industry dear to their hearts and who believe that any extra price that they pay goes to enrich a class of people on whom indirectly depends their own well-being, have kept our work going. With their support a sale of Rs. 3,39,355 has been effected in 1937 of silk fabrics manufactured in our own centres and by merchants holding our certificates. But this cannot go on in an extensive scale side by side with cheap imported silks without State protection. For the purposes of the present enquiry, our figures, based on actual manufacturing work in Bengal, will give an idea of the minimum cost at which the industry can somehow be kept going.

The case for extra protection will be clear if we examine the prevailing rates of raw silk from different sources. After having paid wages and prices at the minimum scale our cost of production comes to Rs. 6-12-6 per pound of raw silk. The bazar rate at Malda, to compete with the imported silk, ruled somewhere near Rs. 6-4 per lb. This difference is bound to have been brought about by deterioration in the quality of the silk and also by cutting down the prices of cocoons of rearers who receive advances from the master reelers who act as supplying agents to Malda merchants. Malda raw silk is not re-reeled. But the rate of re-reeled Japanese filature silk of 13/15 denier ruled somewhere near Rs. 6 in Bombay (A graphical representation of the market fluctuation of the different varieties* is attached herewith). If we have to re-reel our silk a sum of at least annas eight need be added in addition to annas four as profit of the merchant and sales organisation expenses. That is, the sale price of our re-reeled raw silk of 13/15 to 28/30 denier will come to Rs. 7-8 and if we have to hold our own, such protection will have to be given as will not allow the Japanese imported silk of the same denier to be sold for less than Rs. 7-8 per pound. The Canton silk compete with the best Bhurna and the Italian coarse silk competes with ghora of Malda. For protecting the other two lines also Canton silk should not be allowed to be sold for less than Rs. 6-8 and Italian coarse silk for less than Rs. 4 per pound. The imported twisted spun silk is hitting eri, mutka and tussar. Therefore, we propose, that an all round levy should be imposed on all imported silks spun, reeled and artificial—both in the form of yarn and finished cloth.

If the industry is to be revived improvements should be introduced in the following lines:—

1. Cost of mulberry leaves should be cheapened either by better manuring and improved method of cultivation or by the introduction of tree mulberry plantation.

2. Supply of disease-free layings to the rearers and introduction of better races of silkworms.

The present arrangement of the Government of Bengal as for the supply of disease-free layings is absolutely inadequate. They supply seed cocoons, the layings of which cannot be supposed to be disease-free. The Sericulture Department claim to have introduced two better races Nistid and Nismo. There is no doubt that the cocoons are good but they are not yet available in large quantities either from Government nurseries, selected rearers of the Government or in the open market for Commercial reeling. If the Government Department with its elaborate organisation with nurseries, demonstrators and selected rearers, etc., can introduce the Nistid and the Nismo to replace the Nistari and the Chhotoplu it will be a decided gain. In Bengal the experiments in regard to Nistid and Nismo have been carried on for about a year. In our opinion, one year is too short for giving a verdict about acclimatising a particular race under particular conditions. We shall await with interest further progress of the Sericulture Department in this direction before we go to introduce this new race among our registered rearers.

3. Introduction of efficient methods of reeling and re-reeling. The Sericulture Department is trying to introduce a new type of ghai and a re-reeling arrangement. Demonstrations are being given in two of our centres. It has got certain advantages but unless the fuel consumption can be cut down and wear and tear minimised it can not be paying. Experiments have still to be carried on with it before it can be placed in the hands of a professional reeler.

Introduction of such improved methods requires time and in a declining stage of the industry when the village workers are dejected and demoralised, it is not possible to introduce amongst them new methods

* Not printed.

of manufacture. Therefore, although the industry may show signs of revival with the grant of extra protection, it will take some time to stabilise the industry and introduce improved methods of manufacture amongst the ill-organised villagers. Under the circumstances, the period of protection should be not less than ten years.

We are giving below the actual figures relating to the production of silks as obtained in the centres of the All-India Spinners' Association in Malda, Bankura, Birbhum and Murshidabad, under the following heads:—

- (1) Volume of business of the All-India Spinners' Association, Bengal.
- (2) Cost of mulberry cultivation.
- (3) Cost of cocoon rearing.
- (4) Cost of reeling.
- (5) Cost of raw silk per pound produced.

Volume of business of the All-India Spinners' Association in Bengal in 1937.

There are 15 All-India Spinners' Association centres and 15 centres of merchants having certificates of the All-India Spinners' Association in the districts of Malda, Mursidabad, Birbhum and Bankura. The sphere of activity extends to 112 villages.

	Rs.
1. Produce of raw silk—	
5,385½ lbs. of the value of	39,437
and through a party having a certificate	44,825
Total in 1937	<u>84,265</u>

	Rs.
2. Silk cloth sales—	
By A. I. S. A. Bhandars	1,05,869
By certified parties	2,33,486
Total	<u>3,39,355</u>

The above sale include articles brought from centres in Assam, and matka, tussar and ketis.

3. 647 rearers in Malda sold to us 1,026 maunds of cocoons for Rs. 26,910, the average coming to Rs. 26-3 in 1937 alone.

4. 938 matka spinners spin pierced mulberry cocoons for us.

5. 557 families of weavers weave cloth for us.

6. 96 reelers and turners work in our own establishment in Malda.

Cost of mulberry cultivation.

One bigha of land yields 60 to 70 maunds of leaves with young branches in Malda district. We take the average yield as at 65 maunds. The yield of leaves vary in other districts.

The detail of cost of cultivation is given below (one bigha):—

	Rs.
Manure (aquatic algae) 25 cart loads	8
Labour charges for manuring (hired)	2
Labour in other parts of the year (hired)	15
Rent (an average figure)	5
Total	<u>30</u>

Leaves with young branches sell at $1\frac{1}{2}$ maunds to 2 maunds in the rupee.

Calculating at $1\frac{1}{2}$ maunds on an average the income from sale of 65 maunds will come to Rs. 37.

Calculating the cost of cultivation at Rs. 30 per bigha and the yield being reckoned at 65 maunds the cost of a pound of leaf—1 pie.

If leaves are purchased at $1\frac{1}{2}$ maunds per rupee the rate per pound of leaf comes to 1-3 pies.

In Bengal the leaves are obtained by cutting with small branches to save the cost of plucking and the weights given above is for leaves with young branches.

Cost of cocoon rearing.

In Bengal we do not get and therefore do not start with layings. Seed cocoons are supplied by the selected rearers of the Government or from Government nurseries.

One ounce of seed cocoons yield—4-4 pounds of Nistari and 6-2 pounds of Chhotoplu.

We may calculate at the rate of five pounds of yield per ounce of seed cocoons.

One ounce of seed cocoons for yielding 5 lbs. of cocoons will require 100 to 120 lbs. of leaves, i.e., twigs.

Thus for producing 100 pounds of cocoons the following expenses may be incurred:—

	Rs.	As.
Seed cocoons—20 ounces	1	0
Cost of appliances	3	0
Other expenses	1	8
Labour	9	0
	this includes cost of homo labour available.	
Total	14	8

To the above sum of Rs. 14-8 if we add the value of 2,400 lbs. of leaves necessary for obtaining 100 lbs. of cocoons at the cost of production, i.e., one pie per pound then the value of leaves will come to Rs. 12-8 and the total cost of producing 100 lbs. cocoons will be Rs. 27. But if the rearer has to purchase leaves at 1-3 pies per pound, he will have to pay Rs. 16-4 for 2,400 lbs. of leaves and the total cost of production will come to Rs. 30-12.

When the total cost is Rs. 27 for 100 lbs., the cost per pound comes to 1-32 annas per pound of cocoons.

When the total cost is Rs. 30-12 for 100 lbs., the cost per pound comes to 4-92 annas per pound of cocoons.

The average rate of our purchase of 137,275 lbs. of cocoons in Malda alone during 1937 and up to August, 1938, for a sum of Rs. 41,219 works up to an average rate of 4-8 annas per pound.

We propose that if the average rate of cocoons be fixed at annas 5, at least per pound the rearing may prosper.

Yield of cocoon per bigha of mulberry land.

One ounce of seed cocoons with 120 lbs. of leaves yield 5 lbs. of cocoons. If the yield of mulberry leaves per bigha be reckoned as at 65 maunds then the yield per bigha will work out to 220 lbs. of cocoons. This is a very vague method of calculation and nobody knows what percentage of

error may be allowed in this basis of calculation. If on this basis of calculation the production of silk is calculated the results are bound to be within very widely divergent limits. Any way in the absence of any other better method of estimation we go by this method of calculation.

Cost of reeling.

We have got our reeling establishments both in the districts of Malda and Birbhum. For facility of comparison we are giving side by side below the reeling charges is obtained in the two places for one pound of raw silk:—

	Malda. Rs. A. P.	Birbhum. Rs. A. P.
Labour charges and cost of water supply	0 11 9½	0 12 6
Miscellaneous and depreciation	0 1 2½	0 1 3
Interest and supervision	0 6 8	0 6 8
Total	1 7 9	1 9 3

In the above calculation, reeling charges have been paid at As. 5 to As. 7-6 per reeler according to efficiency and As. 3 to As. 5-6 for turner, for a period of 9 hours daily.

In Malda, 137,275 lbs. of cocoons yielded 7,444½ lbs. of raw silk.

The *Rendita* works out to 18·4.

In Birbhum cocoons are sold by number and therefore comparison is not possible with available figures.

Production of waste in reeling (Malda).

In 1937—100 lbs. of cocoons yielded 5·62 lbs. of silk and 5·3 lbs. of waste.

In 1938—100 lbs. of cocoons yielded 5·4 lbs. silk and 5·07 of waste.

Cost of raw silk.

With the above *rendita* of 18·4, cost of 1 lb. of raw silk works out as follows:—

	Rs. A. P.	Rs. A. P.
Cost of cocoons in Malda at the average rate of 4·8 pies per pound	5 8 8½	
Reeling charges as above	1 7 9	
		7 0 5½
Cost of cocoons in Birbhum	4 15 6	
Reeling charges in Birbhum as above	1 9 3	
		6 8 9

The Malda silk is used for the warp and fetches a little higher price than the Birbhum silk which is used for Bharna (weft).

After deducting the sale price of the waste obtained for reeling one pound of silk, which may come to annas four, the cost of production of Malda silk will come to Rs. 6-1-6 and the Birbhum silk to Rs. 6-4-9.

If we calculate the price of mulberry leaves as at 1 pie per pound and thus a pound of cocoons at 4·32 annas the cost of production of a pound of silk will come to Rs. 6-2-6 in Malda after deducting four annas for the value of the waste. But if we calculate at the rate of 1·3 pies per pound of mulberry leaves and thus a pound of cocoons as at 4·92 annas the cost of production of a pound of silk in Malda will work out to Rs. 6-13-5 after deducting annas four as the value of the waste obtained for reeling one pound of yarn.

The actual rate per pound in our centres has come to Rs. 6-12-6 after deducting the value of the waste. This is the minimum rate at which yarn of this quality can be produced. If it is to be re-reeled and if the sales are to be organised at least another sum of annas twelve need be added.

(26) *Letter No. 2558, dated the 16th July, 1938, from the Secretary, Bengal Chamber of Commerce, Calcutta.*

I have the honour to refer to your letter No. 595, dated the 15th June last in which you invited the Chamber to submit replies to the questionnaire issued by the Tariff Board in connection with the present enquiry into the renewal of protection for the sericultural industry, the position being that the protection now afforded to the industry under the Indian Tariff (Textile Protection) Amendment Act, 1934, will terminate on the 31st March, 1939.

2. In reply I am directed by the Chamber Committee to express regret that they cannot usefully assist in the enquiry, as no members of the Chamber are now directly interested in the sericultural industry in Bengal. As a matter of interest to the Tariff Board, however, I am directed to quote the following remarks which have been communicated to the Chamber by a member, as illustrating the extent of the deterioration of the silk industry in this province:—

All I can say is the silk industry in one part of the Murshidabad District which used to be one of the most important centres not only for cocoons for reeling but also for seed for reproduction is now practically dead. There are no independent mulberry growers, we ourselves who were the largest independent growers having given it up long ago for want of buyers, and now rearers only keep very small patches. All the steam filatures have disappeared in Bengal, with the exception of perhaps 2 or 3 near Jangipur and reelers have reverted to the Kongroo basins, i.e., with an open fire to heat the water which makes it impossible to regulate the temperature of the water and thus make good silk. The silk now made in Bengal would find no market anywhere else and the cloth made from it in Bengal is too inferior for anything. The quantity turned out is also very small.

(27) *Letter No. 01484, dated the 23rd July, 1938, from the Indian Chamber of Commerce, 135, Canning Street, Calcutta.*

I am directed to invite reference to your letter No. 544-A., dated the 24th May, 1938, and your further communication dated the 15th June, 1938, regarding inquiry into the grant of further protection to the Sericulture Industry and give below the views of the Committee. The Committee do not propose to reply to the questionnaire item by item but would express their opinion in a general manner.

The Committee would point out that the Sericultural Industry has developed in various parts of the country principally in Bengal, Mysore, Assam and Kashmir and is essentially a rural industry. The growing of mulberry, the rearing of silkworms, the reeling of silk and the weaving of silk fabrics and other processes connected with the silk industry have an important place in the rural economy. Mulberry is an important commercial crop and rearing of silkworms is an important subsidiary industry to agriculture. In Bengal before the onset of depression there were 30,451 rearers and 17,555 acres under mulberry. By 1933-34 the number of rearers has fallen to 18,592 and the mulberry area to 10,032 acres. There was a further fall in these figures by 1936-37 to 15,180 and 9,448 respectively and this occurred practically wholly in the Murshidabad district due to a number of causes. In Mysore about 54,000 acres were under mulberry cultivation in 1926-27 but the acreage has fallen to one-half of the same at present.

About 2 lakhs of families used to find occupation in the Sericulture Industry before the present depression in the silk trade set in.

The Committee would further point out that the depression in the price of silk is one of the main reasons for the set back the industry has suffered during the past several years. The economic condition of the rearers in Bengal showed slight sign of improvement in the middle of the year 1935-36, when the price of coarse silk rose a little but this improvement was not maintained. It cannot be gainsaid that much discontent has prevailed among the silkworm rearers owing to the disparity between the selling price of the silk products and the cost of production. In Mysore also the price of filature silk varied between Rs. 9 and Rs. 10-4 per lb. in 1927 but had declined in 1933 to Rs. 5-8 to Rs. 6-8 per lb. which is below the average cost of production. In May, 1938, the price further declined to Rs. 4-8 per lb. The indigenous industry, therefore, find it extremely difficult to maintain its position.

The Committee need hardly point out that the most important factor on account of which such uneconomic prices prevailed is the competition of foreign countries. In 1931-32 raw silk worth Rs. 62,27,467 was imported into India from China and Japan. In 1937-38 the imports have increased to Rs. 94,67,262. Moreover, the import of artificial silk, an indirect competitor of raw silk—rose from 11,000,000 lbs. in 1932-33 to 17,000,000 lbs. in 1937-38. In face of such severe foreign competition the indigenous industry has hardly been able to subsist and the Committee believe that if unrestricted foreign competition is allowed to continue, the Indian Sericultural industry will stand to be ruined.

The Committee would mention here that in 1933 the Tariff Board had recommended a duty of Rs. 2-6 per lb. on imported silk or an *ad valorem* duty of 50 per cent. whichever was higher. But the protective duty which the Government levied in April, 1934, was 25 per cent. *ad valorem plus* As. 14 per lb. which worked out only to about Rs. 1-10 per lb. This duty clearly fell short of the recommendation of the Tariff Board. The Committee would point out that the disparity between the sale price and the cost of production could not be adjusted by the Tariff protection. The fact that the industry exists in such hard times of competition is mainly due, as the Director of Industries pointed out in the Report of the Department of Industries, Bengal, to the profession of silkworm rearing being pursued by labour which was otherwise unproductive and would have remained unemployed.

The Committee would further point out that large improvements have been effected in the industry and the period of five years for which the protection had been granted is quite inadequate to get satisfactory returns from these improvements. Apart from the improvements in cultivation, new races of worms particularly mistic and nismo have also been introduced in Bengal. The Committee are, therefore, of the opinion that sufficient time should be allowed to the industry to reap the benefits of the improvements already effected.

In view of the important place the industry of sericulture occupies in rural economy of the country, the Committee would, therefore, emphasise that the existing protection to the industry should be continued for a further period of ten years and they hope that the Board would find the suggestion acceptable.

(28) Letter dated the 3rd August, 1938, from the Japanese Chamber of Commerce, 135, Canning Street, Calcutta.

With reference to your letters Nos. 541-A., 595, dated May 24th and June 15th asking for information regarding the grant of further protection to the Sericultural Industry in India, we have much pleasure in sending a reply, attached herewith, to the questionnaire. We shall be glad if this should prove of any reference to the Tariff Board.

Memorandum from the Japanese Chamber of Commerce, Calcutta, to the Tariff Board regarding the grant of further protection to the Sericultural Industry in India.

The main points of the Chamber's views on the questionnaire of the Tariff Board may be summed up as follows:—

(1) Meagre supply of Indian raw silk.

Past statistics show that a considerable amount of foreign raw silk has annually been imported into India, the average import of the last ten years amounting to 1,947,537 lbs. (Rs. 81,51,593). When the industry is so much dependent on importation of foreign silk, the possibility of India becoming self-sufficient in sericultural industry seems somewhat remote.

(2) A comparison of imports of raw silk both before and after the execution of protective tariff in 1934 is given below:—

	Quantity.	Value.
	Lbs.	Rs.
1927-1933 (the average import) .	1,898,571	93,89,618
1934-1937 (the average import) .	1,828,456	52,62,866

This shows that the entire quantity of import remained practically identical despite the high protective tariff, although there was decrease in the total value. The fact that protective duty has not affected the import of foreign silk is sure testimony that the need of the latter is absolutely imperative.

(3) Decline in price is attributed to world-wide factors. Drastic depreciation of price has taken place not merely in India but also in Europe and America.

(4) High protective tariff benefits a small section of sericulturists alone.

As aforesaid, the Indian sericultural industry owes its existence to the import of foreign raw silk which totals as much as 1,800,000 lbs- 1,900,000 lbs. annually. A high duty benefits only a handful of sericulturists (those in Mysore, Kashmir, Bengal) and is an enormously heavy burden to innumerable minor handloom weavers to whom raw silk is of vital necessity. It may even be asserted that they have everything to lose and nothing to gain out of the grant of further protection.

(5) It is an undeniable fact that Japanese raw silk is far superior to Indian raw silk in quality, re-reeling and many other respects, and has a wide and ready sale amongst weavers. It may be that for climatic and other reasons India is not a very suitable soil for sericulture. The fact that this industry, after its existence of hundreds of years, has remained stagnant would seem to suggest that there is little prospect of its further improvement in the future.

In short, the plain fact is that the existing tariff is already excessively high and the benefit accruing from it is monopolized by a handful of sericulturists at the expense of a vast number of handloom weavers. There is good reason to believe that the grant of further protection would have the unfortunate effect of still aggravating the straits of the Indian weavers. From the standpoint of the welfare of the Indian masses, the wisdom of pursuing such a step can seriously be questioned.

Import of Raw Silk into India From 1927—1937.

	1936-37.		1935-36.		1934-35.		1933-34.		1932-33.	
	lbs.	Rs.	lbs.	Rs.	lbs.	Rs.	lbs.	Rs.	lbs.	Rs.
Japan	974,746	33,98,736	1,417,769	37,27,043	896,544	21,47,039	220,170	6,57,291	164,799	4,71,332
China	651,624	22,34,455	186,365	5,79,841	1,191,955	33,31,806	1,798,705	55,88,051	2,563,257	96,51,505
Others	25,215	75,270	12,730	35,355	128,421	2,59,053	57,691	90,043	88,369	1,98,677
Total	1,651,585	57,08,461	1,616,864	43,42,239	2,216,920	57,37,898	2,076,566	63,35,375	2,816,425	1,03,21,504
Average price per lb.	Rs. 3-7-3		Rs. 2-10-10½		Rs. 2-9-5		Rs. 3-0-9		Rs. 3-10-7½	
	1931-32.		1930-31.		1929-30.		1928-29.		1927-28.	
	lbs.	Rs.	lbs.	Rs.	lbs.	Rs.	lbs.	Rs.	lbs.	Rs.
Japan	33,759	1,58,943	17,000	64,711	37,613	1,59,623	126,171	7,12,687	62,564	3,24,205
China	1,356,162	54,64,016	1,623,939	75,35,167	1,964,372	1,12,82,067	1,711,413	1,01,99,981	1,976,546	1,23,78,326
Others	329	1,800	286	1,732	36,084	1,46,208	127,305	5,35,674	23,373	1,05,249
Total	1,390,250	56,24,759	1,641,234	76,01,610	2,038,049	1,15,87,953	1,964,889	1,14,48,342	2,062,583	1,28,07,780
Average price per lb.	Rs. 4-0-9		Rs. 4-10-0		Rs. 5-10-11		Rs. 5-13-3		Rs. 6-3-4	

(29) *Statement submitted by the Japanese Chamber of Commerce, Calcutta.*

Thrown silk yarn—

13/15 denier×2 threads organzine at Yen 6.40
per lb. c.i.f.—

	Rs.	A.	P.
Ex at 79	5	0	11
Duty 25 per cent.	{	1	4 3
		0	14 0
Total	7	3	2

Charges—

P. C. charges	0	0	1½
Clearing charges	0	0	0½
	0	0	2½
Total	7	3	4½

(30) *Letter dated the 16th November, 1938, from the Secretary, All-India Spinners' Association, Bengal Branch, E-76, College Street Market, Calcutta.*

Herewith are enclosed certain informations which the President wanted us to furnish. Please acknowledge receipt.

We hope the Board will recommend suitable measures of protection.

Detailed cost of cultivation of one higha mulberry land (obtained from Bejin Behari Mandal of Jalalpur, District Mulda).

	Rs. A.	Mds.
Rent of the land	1 4	...
Cost during November season	5 5	20
	Rs. A.	
Cutting of stems	0 10	
Labour for weeding	0 7	
Ploughing	0 6	
Rows-dressing	1 2	
Re-dressing	0 12	
Side-dressing	2 0	
Labour rate is As. 2 per day	5 5	
Cost during March season	1 4	15
	Rs. A.	
Rows-dressing	1 4	
Cost during June season	30 8	15

	Rs. A.	Yield of leaves.
Rows-dressing	0 8	
Earthing	5 0	
Manure (water algae) 40 cart loads	20 0	
Labour for manuring . .	5 0	
	<hr/> 30 8	
Cost during August season	Rs. A. 4 0	Mds. 20
	Rs. A.	
Rows-dressing	1 0	
Labour for weeding—		
1st term	1 8	
2nd term	1 8	
	<hr/> 4 0	
Total	42 5	70
		or 5,600 lbs
Ounce manured, the ground requires re- manuring every alternate year. Hence the cost of manuring should half for one year. Thus deducting half the cost of manuring	12 8	
	<hr/> 29 13	
or roughly	30 0	
Cost of leaves per lb.—1 pic roughly.		

Detailed cost of cultivation of one bigha mulberry land (obtained from one using no manure).

	Rs. A.	Yield of leaves.
Rent of the land	2 0	Mds.
Cost during November season	5 4	12
	Rs. A.	
Cutting of stems	0 8	
Ploughing	0 8	
Rows-dressing	2 0	
Side-dressing	2 0	
Weeding	0 4	
	<hr/> 5 4	
Cost during March season	2 0	8
	Rs. A.	
Rows-dressing	2 0	
Cost during June season	8 0	10

Yield of leaves.

	Rs. A.	
Rows-dressing	1 0	
Earthing	3 0	
Slight manure of rotten earth	4 0	
	<u>8 0</u>	
	Rs. A.	Mds.
Cost during August season	2 0	12
	Rs. A.	
Rows-dressing	1 0	
Weeding	1 0	
	<u>2 0</u>	
	<u>19 4</u>	<u>42</u>
or roughly	20 0	or 3,360 lbs.

Cost of leaves per lb.—1·1 pio roughly.

*Detailed cost of rearing cocoons (obtained from Bepin Behari Mandal—
a rearer of Jalalpur).*

			Yield of cocoons.
			Md. Sr.
	Rs. A.		
Average cost of 1 lb. seed cocoon	1 0	During November . .	1 5
		During March . . .	1 0
Average labour charge at		During June . . .	1 0
As. 3-6	7 0	During August . . .	0 35
			<u>4 0</u>

	Rs. A.	
During Novem-ber season . .	8 10	
During March season . . .	6 6	
During June season . . .	6 6	
During August season . . .	6 6	
	<u>27 12</u>	
Average	6 15	
Roughly	7 0	
Other expenses	2 0	
(Clearing and washing of the rearing houses, fumigating.)		
Cost of appliances	1 0	
Cost of leaves	12 4	

On the average 1 md. or 80 lbs.

	Mds.	
November	25	} Taking 1 pie per lb.—Calculated on the basis of using leaves of one's own land it comes to Rs. 12-2-8.
March	20	
June	20	
August	20	
	<hr/> 85	

On the average 21½ maunds or roughly 22 maunds or 1,760 lbs.

The yield being 80 lbs. on the average, the cost of 1 lb.; comes to 4-65 annas. If the rearers has to purchase leaves which sell at 1½ maunds per rupee on the average, the cost of leaves comes to Rs. 12-10. The total becomes Rs. 23-10. The cost of 1 lb. comes to 1-75 annas.

Protection of leaves to the twigs.—It varies from season to season. The average is taken to be 50: 50. On actual weighing in November, 1938, it is found that the leaves are 60 per cent. while if the leaves are cut off and weighed along with the twigs the proportion is 50: 50.

No. of cocoons per lb.—

	Lb.	
Chhotopolu	1	600—700
Nistari	1	800—1,000

(31) *Letter No. 511, dated the 5th July, 1938, from the Hon'y. Secretary, the Bihar Chamber of Commerce, Patna.*

With reference to your letter No. 595, dated the 15th ultimo forwarding questionnaire for importers and traders regarding the grant of further protection to Sericultural Industry I beg to forward herewith five copies of each of our replies on the questions as desired.

In this connection I am desired by my Committee to inform you that if any oral evidence is required on any of the questions it would be convenient to us if our witnesses are examined when your Board visits Bihar.

ANSWERS TO SERICULTURAL ENQUIRY SERIALY (HANDLOOM INDUSTRY).

Fly Shuttle.

1. Bhagalpore—

Cotton	589
Silk	2,879

About 50 per cent. looms not working.

(a) (i) 200 looms.

(ii) 1,000 looms.

(iii) 630 looms.

2. From local market. Every thing is imported except gold thread and about 2 per cent. raw silk.

Raw silk Rs. 5 per lb., silk yarn Rs. 6-3 per lb., spun silk Rs. 4-8 per lb., artificial silk As. 12 per lb., gold thread As. 4 to Re. 1 per tola.

3. Yes, 80 per cent. from Japan and very little from Italy and England and United States Rs. 2-8 per lb.

4. Yes. Bhagalpore imports. About 10 lakhs of rupees of staple fibre.

5. (i) Twisting done by other Agency, winding by weavers themselves.

(ii) Other Agency.

(iii) Both by weavers and other agency.

(iv) Weavers.

6. Reeled tasar, spun silk, staple fibre, cotton in warp and in weft all the above and noil and reeled mulberry and spun ori.

7. Same position. No. Standardisation and manufacture of goods supply of raw materials at mill rates and the disposal of the finished products in a profitable market.

8. (6), (7), (8), (9), (10), (4) 90 per cent. Sarees are coming from outside and 10 per cent. locally made. Imported sari Rs. 5-8, local Rs. 6-8 (about 18 to 20 per cent. less) but with better finish.

9. About 20 lakhs.

10. Sarees 1 to 3 days, Dopattas 1 to 4 in a day, Lungis 12 yards. per day. Suitings and shirtings 4 to 9 yards per day. Handkerchiefs 36 in a day. Gown pieces 6 to 9 yards per day.

11. Reeled tasar 3,000 lbs., Reeled mulberry 1,000 lbs., Spun mulberry 15,000 lbs. including noil, hand-spun eri 1,000 lbs. and Spun tasar 1,000 lbs. valued at 10 lakhs of rupees.

12. Sari 5 yds. to 6½ yds. × 44" to 45"—Rs. 6.

Dopattas 3 yds. × 54" to 72"—Rs. 2-2 to Rs. 2-8.

Lungi 2 yds. × 44"—Rs. 1-2.

Handkerchiefs 18"—As. 4.

Gown pieces 1 yd. × 44"—Rs. 2.

Shirtings 9 yds. × 32"—Rs. 6-8 to Rs. 9.

Suitings 1 yd. × 20"—As. 10 to Rs. 2.

13. 10 lakhs.

14. Sari, Dopatta, Lungi, Shirtings, Suitings, Gown pieces, etc. No.

15. Both from middle men and reeler.

16. Yes, up to 30 days on credit according to status Rs. 10 to Rs. 500.

17. Direct.

18. Imported silk is better in uniformity and valued for whiteness. Its bone is better. Indian silk inferior, more costly.

19. Not graded. Yes, provided the price is less.

20. Yes. Yarn given with specification of goods and weaving charge per yard is paid.

21. No change.

22. No change, no improvement.

23. Correct. But very little artificial silk (excluding staple fibre is used in Bhagalpur. About 5 per cent.

24. Spun silk became expensive after imposition of duty but it has been replaced by staple fibre. No.

25. Weaving charges decreased, cost increased. Sale price increased.

26. No benefit as far as weavers are concerned.

27. Some factories are using raw silk in their factories.

28. The following is the approximate cost of manufacture of dyed reeled tasar:—

Coating.	13 Yds. × 34" (one seer weight.)	
	Rs. A.	
Raw material	.	10 13
Twisting and winding charge	.	2 0
Dyeing charge	.	2 0
Weaving charge	.	3 4
Cost of labour	.	0 13
Other charges	.	4 11
		<hr/> 23 9

29. Per piece As. 9 to As. 12 for 9 yds. x 34" shirting.

30. Co-operative society advances raw material to 6 to 7 weavers.

31. Bengal, United Provinces, Bombay, Central Provinces, Burma, Madras, England and United States.

Marketing done by merchants and weavers do not pay transport and other charges.

32. Increasing. Now staple fibre and artificial silk and noils. should be heavily taxed and textiles with the above at least 10 per cent. more than yarns. The weavers will be benefited if spun silk, staple fibre and artificial silks are manufactured locally and the rearers will be greatly benefited if there is a tariff wall up to 100 per cent.

33. Vory little. Time is required.

34. Nil.

ANSWER TO SERICULTURAL ENQUIRY SERIALLY.

General Questionnaire.

1. There was only one rearer in Bihar but now there are about 50. No one is entirely or partly dependant upon it for their livelihood.

2. The rearers grow mulberry and rear worms from the eggs distributed by the Government seed supply stations. The cocoons are sold locally or to the Government. The Government has granted subsidies to about 33 rearers.

3. Exact figures not available.

4. From one maund of green cocoons of the Nistari race about 2½ seers of raw silk is obtained. From Chinese race about 3 seers, from Japanese race 3½ and Italian race 3½ seers of raw silk can be obtained.

5. The Nistari. The Boropolu and the Mysore races.

6. No separate house has been constructed.

7. Figures not available.

8. More space and ventilation are being given. More importance is given to disease-free eggs and disinfectants. The mortality is less now than before.

9. From local seed. Seed produced separately as eri and mulberry worms are reared together in the seed stations no separate account is kept.

10. There is no legislation but disease-free seeds are distributed. The crops are successful.

11. Multivoltine 5 broods in a year and univoltine one brood. Multivoltine 52,000. Univoltine 36,000 green cocoons per ounce. 60 ounces per year.

12. No foreign race reared on a large scale.

13. Seed cocoons are collected from a disease-free brood, medium sized compact cocoons are selected. Healthy moths are kept for copulation and oviposition. The pasteur cellulaire method is adopted.

14. About 10 per cent. wastage now. Formerly the wastage was about 45 per cent.

15. Mulberry leaves. Rearers rear from the leaves of their own land. The initial cost is Rs. 30 per acre and recurring Rs. 15 yearly. Cowdung and silt are used as manure. Trees have been planted on the boundary land. The yield of leaves per acre from bush plantation is 160 maunds annually. 16 to 20 maunds of leaves are required per ounce. The cost of 20 maunds of leaves to the breeders will be about Rs. 4 to Rs. 5.

16. Yes.

(b) Four crops. Tree preferable. Figures not available.

17. Not available.

18. Cocoons are selling dearer now as compared with other food crops. As the price of cocoon is high now rearers are taking up the industry and with that object in view they are planting mulberry.

19. Tree mulberry is being planted. It will take about 4 years to get the results.

20. No improvement.

21. From 1 ounce of multivoltine eggs 50 seers of green cocoons and 38 seers of univoltine cocoons are obtained. No improvement.

22. First generation by bride yield about $1\frac{1}{2}$ times more silk but they degenerated in successive generations.

23. Figures not available.

24. Rs. 16 to Rs. 18 per lb. in 1933-34. Rs. 22 per 82 lbs. in 1938.

25. The breeder sells his cocoons at once. He generally cannot afford to wait. There is no filature in the Province and hence figures not available.

26-54. No filature in the Province and hence figures are not available.

55. The price of Indian silk yarn is Rs. 6 per lb. and mill-spun silk Rs. 4 to Rs. 5 per lb., artificial silk As. 12 per lb. and staple fibre Rs. 2-8 per lb.

56. Superior reeled Japanese mulberry raw silk and reeled tasar are selling at Rs. 5 and Rs. 4 respectively per lb. whereas Indian mulberry raw silk and tasar sell at Rs. 5-8 and Rs. 6-8 respectively.

57. Imported raw silk superior to Indian silk in winding uniformity bone and in lustre and in whiteness. The imported silk is cheaper. The price ought to have been 50 per cent. more.

58. Not known.

59. Imported raw silk and tasar are now competing both with Indian raw silk and tasar and noil is competing with hand-spun eri.

60. A part is being hand spun and a part exported.

61-62. Not available.

63. First generation crosses always yielded about $1\frac{1}{2}$ times more silk than pure races.

65. Not available.

66. To improve the quality of the reeled silk by establishing filature and requesting to have a silk-conditioning house for silk.

67. To England and United States. Decreasing in America and increasing in England.

	England.			New York and London.		
	1937-38.			1936-37.		
	Rs.	A.	P.	Rs.	A.	P.
Export in America . .	7,685	1	0	11,432	13	6
Export in England . .	5,509	7	2	4,456	6	11

68. Not available.

69. 100 per cent. tariff. A duty of 100 per cent. should be imposed on imported raw silk whereas spun silk should be taxed 70 per cent. To relieve the weavers who will be out of employment plants for spun silk, artificial silk and staple fibre should be set up in India.

(c) 10 years for the present.

70. (a) In the beginning the textile industry will lose but it will make up tasar on, (b) the handloom industry also will suffer for want of suitable raw materials but India will produce raw silk in increasing quantity in course of time, both the weavers and the rearers will be gainers. It is difficult to state whether other industry will be affected.

71. Price of raw silk Rs. 10-13, hand twisting charges Rs. 2.

72. Many new rearers have begun to plant mulberry and rear silkworms.

73. The Government are granting subsidies, distributing disease-free seeds and mulberry cuttings and deputing instructors to advise rational methods of rearing.

74. Yes. (i) By introducing tree mulberry. As the initial and recurring cost of the tree mulberry is very little the growers will be able to sell 20 seers of leaves required for an ounce of eggs for Rs. 2 to Rs. 3 in the place of Rs. 4 to Rs. 5 which they spend now. Thus the price of raw silk will be reduced to Re. 1 to Rs. 1-8 per lb.

(32) *Letter dated the 29th June, 1938, from the Benares Industrial and Trade Association, Benares City.*

We are enclosing herewith a copy of our replies to the questionnaire on Sericultural industry for importers and traders. Kindly acknowledge the receipt.

NOTE ON SERICULTURE INDUSTRY.

1. China and Japan compete with Indian silk mostly in mulberry silk and organzine.

2. The prices in spite of the high tariff walls have been rather low with small fluctuations at times when the local stocks are exhausted.

The present local rates are as follows:—

(a) Organzine Rs. 6-9 per lb. local rate of Benares.

(b) Japanese silk filature Rs. 5-8 per lb.

(c) Canton filature Rs. 4-2-6 per lb.

3. Indian silks have practically been ousted. All hand twisting stopped and its place has been taken by organzine. Bengal silk totally stopped being imported due to reasons:—

(a) It is not uniform.

(b) There is great difficulty in unfolding, hence extra wastage and cost.

(c) The quality differ. No standard.

Kashmir silk used in small quantity only due to its being a bit dearer.

4. The comparison is only with Kashmir raw silk and Japanese raw silk of certain deniers. The Japanese being cheaper is preferred while the Kashmir yarn being stronger is preferred for warp of kora sarrees.

5. The railway freight from the port of Calcutta is much cheaper than the freight from Kashmir.

6. Yes, we do believe that Japan is supplying silks which is cheaper than the cost of production of Indian silks. It is the duty of the Tariff Board to find it out. So far as our information goes the Japanese Government about 3 years ago purchased the whole congested stock of goods from all the mills of Japan and thus relieved the mills of their country to reel fresh goods for America and Europe. The purchased stock is being sold out to India at a very cheap rate even below the cost of production in Japan at present. Thus Japanese Government is bent upon killing the Industry of India in spite of the tariff wall. It is a pity that the Indian Government does not care to organize the dyeing Industry of Bengal by organizing it, out of the huge amount it realises as customs duty and by giving proper subsidy.

7. Bengal silk is far superior in lustre to Japanese silk and its breed can be improved to a great extent with State help.

8. Yes, the conditions differ in every province and to some extent the Hindu idea of Ahimsa (not killing) is also a drawback for the development of this industry, but my conviction is that with the State help mulberry silk industry can flourish in every village of every Province in India. The climate of Bengal is most suitable for this industry but United Provinces can produce the silk in at least 8 months out of 12 months.

9. Certainly the Indian manufacturers get no help or impetus from State and are totally ignorant. No co-operation, no State help, hence even the best industrialists will not risk to invest money in this line for fear of losing their money. Japan may lower the rate and make them suffer loss. If they cry, the Government not being National will take months rather years to investigate and in the meanwhile they have to close their concerns and suffer loss. Hence no industrialists have so far entered this line getting no State guarantee. Look at France. In spite of Japanese competition they are preserving their industry by means of State subsidy.

11. Our suggestion is that the present Tariff may not be reduced but rather increased slightly, but the state should revive the Bengal silk industry and bring it on modern lines with the help of subsidy, etc.

12. Yes, filature silk is certainly preferred. Staple fibre is affecting the sale of spun-silk yarn and indirectly also mulberry silk. Because the sale of very cheap sarree in which mulberry silk was being used is being usurped by staple fibre. Art silk is not much used except in cheap articles.

13. The fall in the prices is due to slump in trade during this year. The demand decreasing the prices went down. Japan wants to sell as much quantity as possible.

14. The competition is assisted by the Government of Japan in all possible ways.

15. The same uniform quality is preserved.

16. No marked change.

17. There are wholesale dealers, who will sell in full cases and also retail dealers who sell in small quantities at a very nominal margin due to keen competition.

19. Answered in (12). The approximate sale of different classes of yarn is given at the end.

21. Now-a-days no twisting is done. Twisted organzine is utilised and the rest done by the weavers themselves.

22. Organzine silk and small quantity of Kashmir raw silk is used for warp and for weft organzine and Japan and China raw silk.

23. Spun silk is used mostly for suiting, shirting and dhoties.

25. Unit of weight, marketing facility, etc., are no hinderance in the sale of Indian silk. We have explained above that modern machinery and proper sericulture knowledge and State subsidy and help for a short period is essential for keeping alive the Indian Industry.

28. Spun silk is no competitor to Indian silk. Still we would like that Government should help opening new factories for making spun silk yarn out of the waste of mulberry silk when the mulberry silk industry is firmly established. We don't think any new factory has come into existence.

29. The chief reason is the cheapness of price and better reeled goods of standard quality.

30. Plain and flowered silk goods also with imitation gold butas and also staple yarn georgette prices.

31. Due to economic depression everybody likes cheap articles. People have little money to spare, hence they prefer cheap articles and cannot afford to buy expensive ones.

32. The sale of cheap Benares sarrees is practically stopped due to the sale of cheap staple yarn sarrees with embroidery work.

33. No, so far as our knowledge goes.

34. All due to economic depression.

35. We have no knowledge of this.

Sale of different kinds of yarns.

Art silk 200 lbs. monthly dull.

Art silk 1,500 to 2,000 lbs. shinning.

2,000 lbs. staple.

10,000 lbs. raw silk Japan and China.

12,000 lbs. organzine Japan.

2,500 lbs. spun silk.

(33) *Letter dated the 1st August, 1938, from the President, Mahakoshal Chamber of Commerce, Jubbulpore.*

Subject: PROTECTION TO THE SILK INDUSTRY.

With reference to your questionnaires on the above subject dated the 15th June, 1938, I beg to say that the same is mainly to be answered by importers, traders, and the industry and hence the Chambers are not replying in details. I am, however, forwarding to you the general view of the Chamber on the subject.

The Tariff Board is asked to take into account the financial need of the country while making their recommendations. In this respect my Chamber is of opinion that in matters of protection of an Industry the recommendations of the Tariff Board should only be guided by the essential requirements of the Industry sought to be protected.

The application of the policy of discriminating protection is bound to effect and reduce the customs revenues and other duties on that import in the initial stage of protection and hence the above view.

As regards the protection of the sericultural industry my Chamber observes from the figures of the past four years that the measure of protection given to the Industry has failed to achieve its object and the Government cannot justify in fixing the rates of duty lower than those recommended by the last Tariff Board.

Further in view of the increased attention now being given by the autonomous Provincial Governments to the needs of the industry, the protective effect will be more evident and helpful to the handloom industry also.

My Chamber wish also to suggest that the scheme of protection recommended should include automatic safeguards against currency fluctuations and against abnormal reduction in the price of imported silk and silk piecegoods. Past experience has shown how the above factors can upset considerably the measure of protection, based on a certain level of prices and exchange assumed as standard by the Board, while forming their conclusions.

My Chamber, therefore, strongly urge on the Board the desirability of continuing the protection to the industry, of raising the protective duties to a level which would, having regard to all relevant factors, in the

opinion of the Board, enable the industry, firstly, to withstand foreign competition, and secondly, to consolidate its position, and of recommending a fairly long period of protection.

(34) *Letter No. A. C. 8/47, dated the 27th July, 1938, from the Buyers' and Shippers' Chamber, Karachi.*

With reference to your letter No. 595, dated the 15th June, 1938, I am directed by the Committee of my Chamber to state as under:—

There are in this Province, the following four silk weaving factories using, to the information of my Committee, mostly foreign yarn:—

- (1) The Chandiram Weaving Works, Rohri.
- (2) The Sugan Silk Mills, Rohri.
- (3) The Pahelaj Silk Factory, Rohri.
- (4) The Lukaman Weaving Works, Khairpur Mirs.

Indian silk piecegoods are being received here by rail or imported partly from Bengal, Benares, etc., and partly from Surat and Bombay. Most of foreign silk piecegoods is imported from Bombay, and a small portion is also being imported from foreign countries direct. Regarding silk and artificial silk, I am to invite your attention to the enclosed extract from the Report on the Maritime Trade of the Province of Sind for the official year 1936-37. This port has also a small export trade with foreign ports in Kashmir raw silk.

The Committee are forwarding copies of questionnaire issued by the Board to the above-mentioned four factories with a request that they should communicate with you direct in this matter as they deem fit.

The Committee would here like to make some general observations regarding the enquiry in question. The Committee note from the Government Notification, dated the 9th April, 1938, that the Tariff Board is asked to take into account, in making their recommendations, the financial needs of the country and the dependence of the Government of India on import, export and excise duties for a large part of its revenue. The Committee are of opinion that the inclusion of this revenue consideration in the terms of reference of the Board is a clear departure inconsistent with the policy of discriminating protection. When the country is committed to the policy of discriminating protection, it is to be naturally expected that Government revenues would more or less suffer in pursuance of this policy. To introduce the revenue consideration in the enquiry is to deny the industry concerned adequate protection which it deserves, and such half-hearted measures of protection, my Committee would emphatically submit, would definitely fail to achieve the object in view. The Committee would point out that although the previous Tariff Board had recommended a higher level of protection for the sericultural industry, Government by the Tariff Textile Protection Amendment Act of 1934 offered to the industry a much lower protection, with the result that such half-hearted protection has not in any appreciable measure helped the industry as will be seen from the increasing imports of foreign raw silk and silk piecegoods into India. In this connection, this Chamber has received a copy of the representation No. 2089, dated the 19th July, 1938, of the Indian Merchants' Chamber, Bombay, to your address, and I am directed to state that my Committee fully support this representation.

The Committee trust that the Tariff Board will be pleased to consider their above view point sympathetically and recommend for a fairly long period adequate protection with a view to enabling the industry to withstand foreign competition and to consolidate its position.

Enclosure statement showing exports and imports of raw silk and silk manufacture, from and to Karachi.

Enclosure I.

Imports of foreign Silk Manufacture at Karachi for the year ended 31st March, 1938.

	Lbs.	Rs.
Silk yarn made from silk waste	135,109	3,18,396
Silk yarn made from noils	1,000	1,182
Silk yarn others	114	1,066
Silk manufacture hosiery, socks and stockings made chiefly of silk	1,500	25,359
Silk piecegoods pongee	3,006	11,415
Spun silk	11,837	48,662
Crepes and georgettes	3,247	24,912
Sateens and tafettas	572	5,026
Silk piecegoods others	2,887	21,897
Silk manufacture goods of silk mixed with other materials	42,133	2,29,474
Silk manufacture thread for sewing	169	4,082
Silk manufacture, other sorts	57	374
Artificial silk yarn	345,887	2,59,555
Artificial silk manufacture hosiery, socks and stockings made chiefly of artificial silk	40,210	85,728
	Yds.	
Artificial silk piecegoods made entirely of art silk	4,387,427	11,49,939
Goods of artificial silk mixed with other materials containing 50 per cent. or more cotton	1,566,799	3,89,700
Goods of artificial silk mixed with other materials containing no cotton or less than 50 per cent. cotton	327,352	4,55,001
Artificial silk manufacture, other sorts . . . . .	...	1,08,920

Export of Indian Raw Silk to Foreign Ports, from Karachi for the year ended 31st March, 1938.

	Lbs.	Rs.
Mulberry	3,759	12,425
Chasam or waste	51,954	60,560

Export of Indian Raw Silk to Coasting Ports.

(No separate heading for this.)

*Export of Cocoons.—Nil.**Import of Indian Silk Manufacture at Karachi for the year ended 31st March, 1938—Rs. 6,800.*

Enclosure II.

Extract from the Report on the Maritime Trade of the Province of Sind for the official year 1936-37.

"Silk.—Imports of silk were valued at Rs. 5.76 lakhs, a decrease of Rs. 1.58 lakhs, which occurred in receipts of *yarn* from Japan, Italy and the United Kingdom, *piecegoods* from Hongkong, and *goods of silk mixed with other materials* from Japan.

Artificial Silk.—The turn over of import trade in artificial silk goods showed no recovery and receipts of piecegoods of pure artificial silk (the chief item under this head, mainly from Japan) declined from Rs. 8.05 lakhs to Rs. 6.68 lakhs. Purchases continued to be made through Bombay and that affected the imports here; the decline was further accentuated by the fact that goods intended for Mekran and Baluchistan are now being sent direct to those places. Imports of goods of *artificial silk mixed with other materials* also decreased further by Rs. 1.11 lakhs to Rs. 4.29 lakhs, mainly in arrivals from the United Kingdom which at Rs. 0.60 lakh showed a fall of Rs. 1.62 lakhs. Germany's supplies, however, rose from Rs. 0.58 lakh to Rs. 1.42 lakhs."

(35) *Letter No. 478/416/30, dated the 22nd July, 1938, from the Punjab Chamber of Commerce, New Delhi.*

We have the honour to refer to your letters No. 544/A, dated the 24th May and No. 595 of the 15th ultimo forwarding, for the Chamber's reply, copies of the questionnaire issued by your Board in connection with its enquiry into the grant of further protection to the Sericultural Industry in India and to say that, as a subject matter of the enquiry does not appear to be of interest to members, the Chamber has no suggestions to put forward.

(36) *Letter, dated the 20th July, 1938, from the Punjab Trades Association, Charing Cross, Lahore.*

I have the honour to acknowledge receipt of your letter No. 595, dated the 15th June, 1938, forwarding a copy of the questionnaire for Importers and Traders, with a view to instituting an enquiry into the grant of protection to the Sericultural Industry in India and asking for a reply thereto, not later than the 23rd July, 1938.

In reply my Committee have directed me to say that as none of its members is engaged in this industry this Association is unable to reply to any of the questions asked for in the questionnaire.

(37) *Letter, dated the 20th July, 1938, from the Punjab Trades Association, Charing Cross, Lahore.*

I have the honour to acknowledge receipt of your letter No. 544/A, dated the 24th May, 1938, forwarding a copy of the detailed questionnaire regarding the Sericultural Industry and asking for a reply thereto not later than the 23rd July, 1938.

In reply I have been instructed by my Committee to express its regret for not being in a position to reply to any of the questions asked for in the questionnaire as no member of this Association has any experience of the Sericultural Industry.

53. Representations regarding the Handloom Industry.

(1) *Letter No. A/159/38, dated the 16th June, 1938, from the Surat Weaving Association, Surat.*

On behalf of the Managing Committee of this Association, I have the honour to address you the following few lines, which I hope, will receive your prompt and careful attention.

The City of Surat is known for the silk manufacture for centuries. At present, there are more than three thousand looms working on spun silk and art silk and similar other fibres, and hence, Surat is a very important centre as far as the silk manufacture is concerned. If the Tariff Board would hold their inquiry at Surat, they would be able to collect very useful and important material regarding the industry. I, therefore, request your honour to arrange for holding inquiry at Surat at your convenience. Surat is vitally interested in the silk manufacture and it is quite necessary that the inquiry be held at Surat also.

(2) *Letter, dated the 10th July, 1938, from the Surat Weaving Association, Surat.*

With reference to your letter* No. 616 of the 22nd June, 1938, together with questionnaire, I have the honour to submit herewith replies thereto, with four copies thereof, as desired.

(Handloom Industry).

1. (a) The approximate number of persons engaged in Weaving Industry in Surat is 20,000. Out of which:—

- (1) about 500 are engaged in weaving pure silk goods;
- (2) and (3) about 3,500 are engaged in weaving cotton and silk mixed goods and in weaving cotton goods only.

(b) There is no increase in the total since 1st April, 1934. On the contrary there is some decrease.

2. The raw materials used in weaving, e.g., raw silk, silk yarn, spun silk, artificial silk, are purchased from Bombay market (where these articles are imported from foreign countries) while gold thread are locally made, and hence obtained from Surat.

The prices are as under:—

	Per lb.	
	Rs. A.	Rs. A.
Raw silk	4 0	to 5 8
Silk yarn	9 0	„ 10 0
Spun silk	4 4	„ 5 8
Artificial silk	0 11	„ 0 14
Gold thread	35 0	„ 40 0

3. Staple fibre is chiefly used in the manufacture of suitings and shirtings, and in small quantities in the manufacture of other fabrics. Now-a-days about 15 per cent. silk and 85 per cent. staple fibre is estimated as being used. Staple fibre is imported in Bombay from Japan and Italy and the price varies between As. 14 to Rs. 1-8 per lb. according to quality and counts.

4. Staple fibre yarn has greatly hampered the use of the real silk and spun silk yarns, because it is very cheap in comparison with raw silk and spun silk yarns. In Surat, about 200 cases (40,000 lbs.) of staple fibre yarn are now-a-days consumed.

5. (1), (2), (3) and (4) Here, all these operations are generally performed by separate Agencies.

6. There are no such distinctions that only particular kinds are used for warp and for weft.

7. The Industry is no doubt in the hands of merchants but weavers do get fair deal in return, and we have no suggestions to make in this respect.

8. All the eleven varieties are still produced, and they have to compete with imported piecegoods. The qualities most subject to such competition are, Sarees, Lungis, Suitings and Shirtings, Gown pieces, Sateens, etc., and 75 to 80 per cent. of these varieties are stopped from being manufactured on account of imported cheap foreign products.

9. The annual total handloom production of goods made from materials mentioned in Question 2 is about one crore yards, worth about 30 to 35 lakhs of rupees. Formerly this was worth about one crore of rupees.

10. It takes about one to three months to get the finished article ready after the purchase of yarn.

11. There being a number of varieties produced, it is not possible to reply in details.

12. The same reply as to question 11.

13. The approximate value of the total annual production of articles prepared from real silk and spun silk is estimated at rupees 20 lakhs.

14. Spun silk was used in many varieties, but owing to the increased use of staple fibre in particular, and art silk in general, in the manufacture of Suitings, Shirtings and Sarees, there is a vast decrease in the consumption of spun silk.

15. The weavers and manufacturers purchase their requirements in raw silk ready made from local dealers, who perform the Grading, Winding, Twisting, Warping and other necessary operations and supply ready Warps and Wefts.

16. The manufacturers give ready Warps and Wefts to weavers, and pay them weaving charges. This being the position here, the question of giving credit to weavers does not arise.

17. The local manufacturers purchase their requirements from Bombay merchants, who are importing from foreign countries.

18. The quality of Indian silk is not particularly superior than the imported silk, and the local silk merchants are of the opinion that the Japanese silk is uniform and high grade, while the Indian silk is inferior and dearer, and hence its use is very limited.

19. Some varieties of silk yarn are already sorted and graded while others have to be sorted and graded here. Even if sorting and grading be introduced in Indian silk, it would not result in its increased consumption. The question relates chiefly to the price.

20. There is no such system of taking the finished article in return for silk supplied to the weaver.

21. Indian silk producing centres and silk merchants are now-a-days making efforts for marketing Indian silk, but it is not preferred owing to its quality.

22. No improvement is noticed, on the contrary it is losing its standard.

23. The imported artificial silk yarn has largely replaced raw silk on account of its extreme cheapness and similarly imported staple fibre has largely replaced spun silk yarn on account of its extreme cheapness,

and rise in the price of spun silk on account of Sur-Tax of As. 14 per lb. This is the present position.

24. It is not true, that spun silk is, or was ever, the serious competitor to Indian raw silk, because raw silk can be used, where it has to be used, and raw silk can never be used in the place of spun silk. Even after the enhanced duty on spun silk, raw silk has not been able to take the place of spun silk, and it is quite improper to presume that Indian silk would be protected by enhancing duty on imported spun silk.

The weaver finds it easy to use spun silk, because it does not need re-reeling, twisting, or degumming. Still where raw silk is necessary it has to be used, and similarly where spun silk is necessary, spun silk has to be used. In fact, they cannot take the place of each other, and hence the enhanced duty on spun silk is not justified. Spun silk should be free from any duty whatsoever. To protect the Indian silk, the import duty on foreign imported cloth produced from raw silk, and artificial silk and spun silk should be highly enhanced, otherwise the handloom industry would not be protected.

25. Since the levy of As. 14 Sur-Tax on spun silk yarn, the price of spun silk has in sympathy therewith increased, but the price of manufactured goods could not likewise increase, which proved fatal to the local spun silk weaving industry, as under such circumstances, the manufacturers would not get their profit, nor the weavers would get proper wages.

26. The opinion of the last Tariff Board is true, but instead of enhancing the present duties on imported silk fabrics, artificial silk goods and mixtures, our opinion is that Indian silk can get its proper place, only if all imported silk fabrics, artificial silk goods and mixtures are totally stopped coming into British India, and Native States, because the country can do without it, and would be able to produce indigenous silk and silk cloth. Importation of art silk cloth is a great loss to the country because poor people waste their money after it, simply for its show, as it is not durable.

27. No new factory has come into existence as a result of protection to the Sericultural Industry or for any other reason. On the contrary, a big factory which came into existence by that time, and other old factories are put into critical position on account of the enhanced duty on spun silk, and for the lack of putting any emphatic restriction on imported silk fabrics, artificial silk goods, and mixtures. The local factories do use Indian raw materials, but they use foreign raw materials to a larger extent, for reasons stated above.

28. (1) Raw materials—50 per cent.

(2) Twisting and winding charges—15 per cent.

(3) Dyeing charges—5 per cent.

(4) Weaving charges—20 per cent.

(5) and (6) cost of labour and other charges—10 per cent.

The weavers are paid per piece. There are different rates for different sorts, which generally brings to the weaver about As. 12 per day.

29. The Co-operative Societies do not assist in any way to this industry. They do not make advance on the finished product, nor do they assist to obtain raw materials, and other requisites.

30. Manufactured articles are chiefly sold in India, and to some extent exported outside India. The freight and other charges for sending goods outside Surat, come to about 3 to 4 per cent, which is paid by the buyer.

31. The demand for natural silk is decreasing as artificial silk is rapidly taking its place on account of its cheapness and lustre.

32. The raw silk is imported from Japan, China and Kashmir and Mysore. Here the consumption of raw silk is estimated at 3 to 4 lakhs of rupees.

33. No such appreciable change is noticed, as a result of protection extended to Indian silk.

34. Surat weavers were consuming spun silk yarn in large quantities. Enhanced duty of As. 14 per lb. on spun silk for giving protection to Indian real silk, has proved fatal to the local spun silk weaving industry. Spun silk weaving was the chief province of local handloom weavers, who were getting fairly good wages thereon, but after the levy of As. 14 Sur-Tax on spun silk, the weavers are compelled to weave cloth similar to those woven in a mill, which is much less remunerative to the weaver, who can with difficulty maintain himself with such small wages, as could be earned on such weaving.

The c.i.f. prices of Art Silk *Fabrics* are lower than the price of Art Silk Yarn per weight, which proves that Foreign Countries sent Art Silk *Fabrics* in India for the only reason of dumping the market.

(3) *Representation handed in by the Poona Weavers in July, 1938.*

SERICULTURAL ENQUIRY.

(Handloom Industry.)

1. (a) A house-to-house census of the weaver castes taken by our Institute during 1936-37 showed that there were about 900 families in Poona whose traditional occupation was weaving. In the following table, they are classified according to their castes and the goods that they are manufacturing.

Caste.	Weavers.			Other occupations.	Total.
	Pure silk.	Cotton and silk mixed.	Cotton goods.		
Swakulasali	31	21	26	130	208
Padmasali	23	1	273	307	604
Momin	12	...	8	65	85
Total	66	22	307	502	897

It should be noted that the differentiation made above is not necessarily water-tight. The same weaver weaves pure silk articles or cotton and silk mixed articles or cotton goods as he is asked to by the merchant or Karkhandar. Again, cotton goods have, like the other two, gold-thread border and sometimes silken too. Thus, many weavers included in the third column, may be placed under the second.

(b) The handloom weaving industry in Poona is liable to considerable seasonal fluctuations. When demand for goods is brisk (i.e., from November to May) a few deserters again take to weaving and so there is a slight increase in the total. But this increase is entirely temporary. No sooner the demand slackens, they are thrown out of employment.

(2) As the purchases of the Karkhandars in Poona are comparatively small, they do not find it convenient and economical to place their orders directly with the silk-producers or their agents in Bombay. Almost all of them obtain their raw materials from local retail-shop-keepers. All the raw materials, viz., raw silk, silk yarn, spun silk, artificial silk yarn

(except gold thread) that are used by Poona weavers, are imported mostly from Japan. The gold thread, however, is manufactured at Surat. The current prices per pound of the different raw materials are shown below:—

(a) Raw silk—not used in Poona.

(b) Silk yarn—"Japan" from Rs. 7-5 to Rs. 7-8 per pound. "Bangalore" not used since last 2 years.

(c) Spun silk—
Japanese—

		Per lb.
		Rs. A.
140 counts	. . . . .	4 13
160 "	. . . . .	5 3
210 "	. . . . .	5 2
280 "	. . . . .	5 10

(d) Artificial silk—
Japanese—

		Per lb.
		Rs. A.
150 counts	. . . . .	0 14
120 "	. . . . .	0 15

(e) Gold thread—

		Per 20 tolas.
1,200 yards	. . . . .	12/15
1,400 "	. . . . .	13/16
1,600 "	. . . . .	15/18
1,800 "	. . . . .	14/19
2,200 "	. . . . .	14/25

(3) Yarn made from staple fibre was used a little by weavers some five to six months back in the manufacture of silk goods. But as goods made of that yarn proved to be not durable, it is not used in Poona at present. It was formerly obtained from local retail-shop-keepers who imported it, through Bombay Agents, from America and Japan.

(4) There is practically no production of staple yarn goods at present in Poona.

(5) (i) Twisting and winding—not performed in Poona.

(ii) Boiling off—This operation is performed in a few big Karkhanas. Most of the weavers purchase silk yarn which is boiled off in Poona by the traders.

(iii) Dyeing—Performed by a few enterprising Karkhandars. Rest of the weavers get this operation done in some dyeing houses in Poona. Spun silk is also dyed in Japan.

(iv) Doubling and preparing the warp—This operation is performed by the weaver himself. Spun silk can be had ready warped.

(6) In the case of pure silk goods, twisted double silk yarn is used for warp and single silk yarn or, in some cases, spun silk is used for weft.

(7) The same even at present the organization of the Industry is in the hands of merchants who finance it. Capital is required both for purchasing raw materials and for carrying stocks, especially owing to the seasonal character of demand. The ordinary weaver has almost no staying power. He has on all occasions to approach the money-lender. If cash is advanced by the merchant to a weaver he charges interest at the rate

or 5 per cent. per mensem. If raw materials are sold on credit he charges high prices for them. The merchant lays down rigid conditions for the repayment of the loan or the payment of the price of the raw materials.

He accepts the finished articles in lieu of either of them. But while doing so he buys articles at a rate which is cheaper than the market rate for the same articles. Thus the weaver loses both ways. Consequently a large majority of weavers is deeply in debt to merchant money-lenders.

There is little doubt that the weaver does not get a fair deal under the present system. Legislation of the type of Money-lenders' Acts passed in certain Indian provinces would, if made applicable to transactions between the artisans and the money-lender merchants, prevent some of the grossest abuses. If Courts had powers to open and review accounts, if merchants were compelled to pass proper receipts and supply copies of accounts periodically to their debtors, if the rate of interest to be treated as usurious were not fixed too high, some relief would be obtained by the weaver community. Illiteracy and the ignorance of even elementary accounts is also an obstacle which must be removed before any improvement could be expected. Fundamentally, however, it is the depressed condition of the market for their goods that makes the weavers so helpless. The demand is seasonal and distant. With the weaving community so heavily in debt it is difficult to make headway with any co-operative effort either. The weavers themselves ask for an assured demand, protection against the competition of mill or power loom production in India and financial accommodation at very low rates from Government. Co-operative efforts in which the weaving community itself is made to take active interest, preceded by some sort of debt-settlement, is the only direction in which lies some hope.

(8) Poona production is confined almost entirely to Sarees. Including the special varieties called (1) Paithani, (2) Shalu Duputtas are not at present woven in Poona. Besides the above varieties Pitambar are also made in Poona. These articles are not subjected to direct competition from imported goods. There is, however, some indirect competition between sarees proper and sarees made from imported materials like georgette.

(9) The total production of goods made from silk yarn, spun silk, artificial silk yarn and gold thread, may approximately amount to 15,000 articles every year. This number includes sarees of silk and cotton mixed.

(10) The number of days required by a weaver to produce a finished article, have of late years decreased, due to the inferior quality of the goods produced and the longer hours which are the result of lower rates of payment. The number of days required to produce an article of each category is shown below:—

		10 Years back.		Present.	
		Rs. a.		Rs. a.	Days.
Paithani	. . .	18 0	15th days	4 8	6
Shalu	. . .	30 0	One month	10 0	4 to 6
Khan	. . .	6 0	3-4 days	2 0	3 to 4
Pitambar	. . .	8 0	8 days	2 8	4

Quantity of silk used.

Tolas.

(11) Paithani	. . .	40 to 45	} For all these articles Japanese silk is used.
Shalu	. . .	..
Khan	. . .	20 to 22	
Pitambar	. . .	27	

	Length and breadth.		Price.
	Yds.		Rs.
(12) Paithani	8½ to 9	48 to 50	18
Shalu	9 to 10	50 to 54	30 to 40
Khan	3	36	7½ to 8
Pitambar	5	50	9 to 11

(13) The approximate value of the total annual production of silk goods only may amount to Rs. 1,50,000.

(14) Spun silk is used in the production of all the above varieties of articles. No.

(15) Through retail shop-keepers in Poona.

(16) Yes. Formerly silk was supplied on personal security. Now-a-days surety is asked for in some cases. The amount of credit depends, of course, on the financial position of the weaver concerned. Credit is generally given for 15 days. If money is not paid within the given period, the merchant charges interest on the amount due, at a rate varying from 1 to 1½ per cent. per mensem. It is complained that in extreme cases, interest runs even from the date of the purchase.

(17) Through retailers.

(18) The quality of Indian silk is certainly superior to that of imported silk. It is not used in Poona only because it is much dearer. It may, however, be noted that the quality, etc., of Indian yarn is not so uniform or standardised as that of the imported yarn.

(19) The question does not arise in Poona. Here imported silk yarn is purchased from local retailers.

(20) Yes. There are a number of Karkhandars in Poona who supply raw materials to weavers and get the finished articles from them, after paying them a wage. No special conditions are imposed on the weavers by these Karkhandars. The merchants, however, impose certain special deductions. These are: (1) Dharmadaya or charity—generally one anna and three pies per article are taken by the merchant for this charge from the weaver. (2) Kasar or discount: a deduction varying from 4 annas to 10 annas per article is made while paying for the article, as discount. In some cases, it is complained, undue advantage is taken by merchants of the weak position of weavers and discount up to one rupee is deducted.

(21) This is true. The same position holds good at present.

(22) Winding is not done in Poona. As regards degumming the loss in case of Indian silk and imported silk is the same. No improvement has been made in the method of re-reeling.

(23) No appreciable change from the previous position.

(24) The present rate is at least not enough so far as the Poona market is concerned.

(25) Data sufficient to reply to this question is not available. The price of silk yarn constitutes little over a third of the cost price of the type of silk sarrees mostly woven in Poona to-day.

(26) It has already been stated above that there is little direct competition of imported goods with Poona silk products. It cannot, therefore, be said how far duties on imported silk goods have benefited the Indian handloom industry. At the same time we cordially agree that the prosperity of the silk industry is bound up with the prosperity of the handloom industry. Hence, without a vigorous policy in support of the handloom industry, the Indian silk industry cannot hope to expand.

(28) Weavers are paid by the piece. The rate varies with the quality of the product. In case of Paithani the rate is from Rs. 4½ to Rs. 5 per article. The rate for a shalu ranges from Rs. 10 to Rs. 12 while that for a sarree varies from Rs. 1-8 to Rs. 2-8.

(29) No Co-operative Society exists at present. A Co-operative Society started a few years ago with Government assistance had to be wound up recently. The main reason for the failure of the Society seems to be that the "experts" were unacquainted with conditions in the industry and that the management expenses were very high. The rigid rules of business followed by the Society were also not liked by weavers. The rate of interest charged was also high. Instead of trying to open entirely new lines of business, the management should have tried to develop the existing markets and lines. They should have been content, initially, with very small margins and might even have confined themselves to co-operative purchase of raw materials. As it was, the Society never earned the confidence of the weaving community and the experiment proved fruitless.

(30) The manufactured article is sold all over Maharashtra, Berar and Karnatak. Poona City is an important market. But only a small fraction of the output is sold directly by the producer (Karkhandar or weaver) to the customer whether at Poona or outside. The large bulk of the output passes through the hands of the Poona merchants.

(33) Not at least in Poona.

(34) The Poona Weaving community has no objection to an increase in the scale of duties or other measures which will bring the price of imported silk yarn to the present level of the price of Indian yarn. As the present use of imported silk is due entirely to the price difference this will lead to a change-over to Indian silk. It would, however, then be necessary to see that an adequate supply of properly graded and standardised yarn is forthcoming from Indian silk producers. It is also urged that it is necessary even from the point of view of the Indian Sericulture Industry to take immediate active steps to stop the deterioration of the position of the handloom industry.

(4) *Letter, dated the 2nd July, 1938, from Mr. Shah Chhagandas Dullabhdas Patani, Wholesale Cloth Merchant and Commission Agent, Yeola, District, Nasik, to the Director of Industries, Bombay.*

Re. YOUR LETTER No. I. A. 68/7731 OF 21st JUNE, 1938.

In reply to your letter I beg to catch your attention to the circumstances which weavers hereof undergo.

Yeola was very renowned place for its weaving works hereof and was flourishing in dealing but from ten years all these lose away and now no gaining either dealers or weavers as there is no demand from outside with so much liking as before as because all the articles which were prepared became out of fashion now and thereby no liking remained to purchase giving price as before and owing to lack of money also customers avoided to demand.

Under these circumstances Yeola passed 10 years by somewhat dealing but as no liking remained to the articles hereof as before thereby always fluctuations in rates happened and rates so fell down that the weavers hereof lost not only their gaining but also their estates and now weavers hereof are in very piteous condition as they remain half-starved but unable to get so much wage as to be sufficient to fill their belly though they labour hard. Here all articles—Paithanis, Sadis, Khans are prepared not only of pure silk of China but also weavers on handlooms.

Here Suti (cotton sadis) and Pagotis also used to be prepared on handlooms.

Up to this time there is no power loom here. In the whole world all sorts of articles are prepared on power looms but in Yeola on handlooms but it becomes dear in wages in comparison to power looms.

But that difference customers grumble to purchase and so reach no demand. Weavers' population here nearly 6,000 while the whole population of Yeola nearly 14,000. This place is famous only for weaving work but that dealing reached to down stage as stated above.

Here were nearly 1,000 looms for silk articles.

Here were nearly 700 looms for Pagadis.

Here were nearly 500 looms for cotton sudis.

In spite of that to-day not appearing half of that.

Here yarn and silk is asked from Bombay and twisting, winding and dyeing all is being done here. Here silk Paithanis, Sadis, etc., are being prepared up to hundred rupees for article as like Bonaros weavers are clever and very expert but they have remained nothing to interest and nobody lends them as they gain nothing and therefore banker sustains no hope to recovery his money.

If your Board turn attention to Yeola market your Board will be convinced that any sort of article can be prepared here either on handloom or power loom as Board will think and will advise but Yeola market wanted support of money and expert adviser to transfer the articles hereof in new form. Yeola market will be highly obliged to you if your Board take into consideration and invent the plan so as to change the market dealing in flourishing condition and to remove the weavers from poverty.

I put forth the information which I knew. If you want now, I shall try to give if you send anybody here.

(5) *Letter, dated the 5th July, 1938, from Bhogilal Bulakhidas Shah, Esq., Chairman, the N. D. Industrial Coop. Asso., Ltd., Ahmedabad.*

With reference to your inquiry I beg to submit as under:—

1. (a) Total number of handlooms in British districts of Gujarat (Surat, Breach and Punchmahals, Kaira and Ahmedabad) according to the personal inquiry held by the Directors of my Association in 1936-37 in places reported to have more than ten looms weaving cotton goods was 4,000. At present the number has dwindled. Many handlooms have been converted into power looms, especially at Surat, Ahmedabad and Nadiad.

(b) (1) Pure silk handlooms about 600.

(2) Cotton goods and silk boarders about 500.

(3) Weaving cotton goods only 2,800.

There is no increase but on account of foreign competition especially that of Japan artificial silk cloth and due to power looms the number has decreased.

2. The raw materials are imported and purchased from local merchants.

The price of Chinese silk is from Rs. 4-8 to Rs. 5-8.

The price of Japanese silk is from Rs. 5 to Rs. 5-8.

The price of Kashmir silk is Rs. 5-8.

The price of Mysore silk is Rs. 7-8.

3. No.

4. Not used.

5. Other agency.

6. Chinese and Japanese silk up to 75 per cent. and Indian and Kashmir 25 per cent.

7. The arrangement is the same. The weavers do not get the fair portion of the profits. If Co-operative Societies are started and properly managed the condition is likely to improve. But at present the weavers are pessimistic and have no faith in any outside agency.

8. (1) Gulbadam Rs. 2,000 per year.
- (2) Daryai not known.
- (3) Phulkari not known.
- (4) Sarees Rs. 50,000.
- (5) Gota Rs. 25,000.
- (6) Dupattas not known.
- (7) Lungis not known.
- (8) Suitings and shirtings not known.
- (9) Handkerchiefs Rs. 1,000.
- (10) Gown pieces not known.
- (11) Brocades Rs. 1,00,000.

There is alround decrease due to decreased buying capacity of the people. Change of fashion and competition. Foreign types specially brought are Georgette, Chirmin, Flower Satin and Toffatta.

9. Rs. 2,00,000.

10 & 11. A weaver with family member does the following work:—

Name of article.	Days.	Length.	Breadth.	Breadth of border	Approximate price.
		yds.			
Brocade . . .	30	15	24"	..	Rs. 50 to 200 for 15 days.
Gajani . . .	30	70	2'	..	One Rupee per yard.
Boarder . . .	10	45	..	1" to 4"	Rs. 12 per inch of 45 yds.
Sarees . . .	30	36	48"	..	Rupces one to seven per yard.
Gota . . .	30	150	1" to 3"	..	From rupee one to ten for 8 yds.

13. Rupees twenty lakhs.
14. Spun silk is specially used in Brocade and gold thread.
15. Through the middleman.
16. Yes, credit from Rs. 100 to Rs. 500 to one weaver.
17. Through retailers.
18. 25 per cent. of Indian silk is used. The price of Indian silk is found to be dearer. Indian silk may be preferred if the rates are not very high. At present the trend of rates of Indian silk specially from Benares is getting favourable.
19. Other agency. If graded and sorted Indian silk is sold at reasonable rates there will be increased consumption.
20. A majority of weavers get only wages on piece work.
21. The same. On remedies made to remove defects.
22. No improvement.
23. The same.

24. The rate of duty not sufficient to safeguard Indian silk.

25. The income of the weaver has decreased to 25 per cent. in last 5 years.

26. The general depression and lower buying capacity of the population having worked adversely the benefits of protective tariff are not visible. But had it not been for the tariff the results would have been more disastrous.

27. Not known.

	Per lb.
	Rs. A.
28. (1) Raw materials	5 8
(2) Twisting and winding	1 4
(3) Dying	0 12
(4), (5) & (6)	1 4
	<hr/>
Total	8 12
	<hr/>

Weavers get on piece work. The rates vary per locality and type of work but a weavers' family gets work for 4 to 6 months in the year and the average income per year is not more than Rs. 125.

29. Nil. The N. D. Industrial Co-operative Association has started work from November, 1936. It only deals only in cotton goods. There is no bar against taking silk weavers as members but the resources are not sufficient to cope with the work.

30. Sarces are sold in Deccan the other articles are sold in the local market.

31. Decreasing.

33. No.

54. Indian Trade Commissioner in Japan, Osaka.

(1) Letter from the Tariff Board, No. 506, dated the 18th May, 1938, to the Indian Trade Commissioner in Japan, Osaka Building, Soze-cho, Kitaku, Osaka, Japan.

The Tariff Board are at present investigating the question of granting protection to the Sericultural Industry. The Board would be grateful if you could send it a note on the Japanese silk and staple fibre industry dealing with such points as the cost of production, steamer freight and other charges, prices for local sale and exports and any other information that is likely to prove useful to the Board.

2. If there are any important publications available on the subject, the Board will be grateful, if you could send them at your earliest convenience. The Board will bear all expenses.

(2) Letter No. 712, dated the 19th July, 1938, from the Tariff Board to the Indian Trade Commissioner in Japan, Osaka.

I am directed to invite a reference to the letter from this office No. 506, dated the 18th May, 1938 (copy enclosed for facility of reference), asking for a note on the Japanese silk and staple fibre industry and to request the favour of an early reply.

(9) *Endorsement No. 341-T. (13)/38, dated the 13th August, 1938, from the Government of India, Department of Commerce, Simla.*

The undermentioned papers are forwarded to the Secretary, Tariff Board, Camp, Bangalore.

List of papers forwarded.

Note on the Sericulture Industry in Japan by the Indian Government Trade Commissioner in Japan.

A Note on the Sericulture Industry in Japan.

Sericulture or silkworm raising and silk reeling has been practised in Japan from times immemorial, but its recent development dates back to the year 1859 when the port of Yokohama was thrown open to foreign trade. The industry received further stimulus after the War, when the demand for silk showed rapid expansion. At present it may be divided into two principal production stages, viz.:—

- (1) the production of cocoons, and
- (2) the production of raw silk.

Formerly both the processes were carried out within a single unit, but in course of time the necessity for specialization led to the separation of these two stages. The first stage now involves the growing of mulberry leaves and the hatching and production of cocoons, and the second the conversion of cocoons into silk filatures. The industry is distinguishable from other textile industries in Japan inasmuch as the entire raw materials consisting of cocoons are produced in the country, and it is still in the stage of handicraft, labour constituting its most important element. The statistical position in 1935 was as follows:—

Mulberry planters	97,579	families.
Area under mulberry plantation	576,513.23	hectares.
Silkworm-egg raisers	4,337	persons.
Silkworm raisers	1,894,647	families.
Silk filatures	3,738	factories.
Output of egg-sheets	256,687	kilograms.
Output of cocoons	307,747,699	kilograms.
Output of raw silk	40,838,951	kilograms.

2. As indicated in the preceding paragraph, the growing of mulberry trees may be regarded as the first stage in the industry of sericulture. There are numerous kinds of mulberry in Japan, but all of them belong to our species, viz.:—

- (1) *Morus Bombycis* called "Yama Kuwa" in Japan.
- (2) *Morus Kagayamae* called "Hachijo Kuwa".
- (3) *Morus Alba* called "Karayama Kuwa", and
- (4) *Morus Malticaulis* known as "Ro Kuwa" in Japan.

There are early, middle and late crops. According to the survey made of the mulberry plantations, all over the country in 1935, early crop occupies 19.6 per cent., middle crop 66 per cent. and the late crop occupies 14.4 per cent. The yield of leaves on new branches of a five-year old plant in Japan has been indicated as follows:—

Early crop.—The yield ranges from 570.4 kilogrammes to 1,067.6 kilogrammes according to different kinds, and their average is 866.3 kilogrammes.

Middle and late crops.—The yields range from 696.4 kilogrammes to 1,937.5 kilogrammes and the average is 1,391.6 kilogrammes. According to the study made in 1931 by the Federation of Sericultural Associations, the cost for producing a representative quantity of 10 kwan (or 82.672 lbs.) of mulberry leaves in Japan is estimated as below:—

	Yen.
Land Rent	0.252
Doprociation of mulberry farm	0.109
Fertilizer	0.367
Labour	0.307
Cost of various materials used	0.021
Agricultural instruments	0.021
Miscellaneous charges, tax, etc.	0.117
Sundry expenses	0.020
	<hr/> 1.214

The Imperial Agricultural Society gives the following statistics of cost of production of mulberry leaves (10 kwan) in Japan as a result of their studies made in 1932, 1933 and 1934:—

	1932.			1933.			1934.		
	Y.	S.	R.	Y.	S.	R.	Y.	S.	R.
Fertilizer	0	39	5	0	47	1	0	41	1
Labour	0	31	0	0	32	9	0	25	2
Cattle employed	0	01	4	0	01	3	0	01	9
Various materials used	0	01	8	0	02	7	0	02	4
Agricultural Instruments	0	02	5	0	02	2	0	02	1
Miscellaneous rates, tax, etc.	0	05	1	0	03	9	0	04	4
Tenancy	0	03	9	0	03	7	0	04	0
Total Yen	0	85	2	0	93	8	0	81	1

In recent years the area under mulberry plantation in Japan has shown a gradual decline. In 1930, the peak year both for cocoon production and mulberry cultivation, the area under plantation exceeded 714,000 *cho* or 708,000 *hectares* which represented 9 per cent. of the cultivated area for the entire agricultural industry in Japan for that year. By 1933, it declined to 640,000 *cho* or 635,000 *hectares*. In 1937 the total area of mulberry farms declined further to 561,072 *cho* or about 1,492,600 acres (one *chobu* being about 2½ acres), a decrease of 5,138 *cho* as compared with the previous year. The decrease is due largely to the readjustment of mulberry farms. Corresponding with the decrease in mulberry farms there has also been a decrease in the number of households engaged in cocoon raising as shown below:—

Year.	Mulberry farms. <i>Cho</i>	Number of households.
1933	640,178	2,092,187
1936	566,210	1,856,551
1937	561,072	1,815,246

The decrease in the mulberry farms and cocoon raisers has not, however, affected the production of cocoons as the following table will show:—

		Production. Kwan.	Value (unit 1,000). Yen.
1934	. . . . .	87,139	655,000
1936	. . . . .	82,892	386,640
1937	. . . . .	85,970	419,600

The average figures for individual households are as follows:—

		Mulberry farms, (Chobu.)	Production. Kwan.	Yen.
1934	. . . . .	0.31	43	102
1936	. . . . .	0.31	44	208
1937	. . . . .	0.31	47	231

3. The hatching and production of cocoons may be regarded as the next stage in the production of silk. As is well known, silk is the product of small "nests" or cocoons of an insect popularly called silkworm, of which various species are reared in different parts of the world, but the most remarkable is the *Bombyx Mori*—the moth that yields the finest silk and is therefore the most popular. There is another type of moth indigenous to Japan known as the *Yamamai* (*Attacus Yamamai*) which feeds on a variety of oak. To obtain good cocoons utmost care is taken to rear these worms. The cocoonery is kept clean and maintained at an appropriate temperature. The worms are fed on nothing but tender mulberry leaves picked fresh from mulberry fields. In this respect the instruction of the ancient Japanese sage Prince Shotoku, "To rear silkworms, do it as you would your babies", has always been strictly observed by the sericulturists in Japan.

The quality of silkworm eggs not only exercises an immediate and powerful influence on sericulture, but ultimately determines the quality of raw silk yarn produced. The Government have, therefore, instituted a system of rigorous testing to assure production of only good eggs, and only such eggs as have passed these tests are placed on the market. The entire process of silkworm egg production is under Government management. Necessary legislation was passed in 1934 for the purpose of improving and unifying the quality of the eggs. Under this arrangement, the Central National Sericultural Experimental Station, Tokyo, selects silkworm eggs of good quality and distributes them to the Sericultural Experimental Stations of different Prefectures. There are 47 Prefectures in Japan Proper, and each Prefecture has a Sericultural Experimental Station. There are also Sericultural Stations in Korea and Formosa. On being supplied with standard eggs by the Central Station, these Prefectural Stations raise silkworms and adapt them to climatic and other conditions of their respective districts. The eggs thus developed at these stations are in turn distributed among individual silkworm seed raisers, who sell their products to silk cocoon raisers. No Seed-paper is supplied to a cocoon-raiser which does not bear a test stamp of the Sericultural Experimental Station. It may be mentioned that during the process of culture, the germination of two-thirds of the eggs, which would normally all develop together in the spring, is delayed by regulation of the temperature in incubators and treatment by immersion in a solution of 1.075 hydrochloric acid with a trace of formalin, until summer and autumn, so that the reeling plants are kept almost continuously occupied and all work and costs are spread more or less uniformly,

over practically the whole twelve months. A further economy is effected by using the male moths twice over, so that only three-fourths of the usual number of cocoons are required to be set aside for breeding. The male moths, after first use, are resuscitated by being allowed to rest in cold storage at 40° F. After recovery they are able to function a second time. Another economy is practised in utilizing all the cocoons pierced by the escape of the moths used for breeding. The cocoons are covered with perforated paper, and this absorbs the gum-dissolving fluid or urine emitted by the moth, as it forces its way out through both cocoon and paper, and so the silk is either left quite unstained or but very slightly so. A slight stain can be removed by washing. These cocoons are then mixed with the unpierced ones in the reeling, and as they are always a very small minority the damage caused by the moth in breaking the fibre is unimportant. The number of silkworm seed producers and the amounts of ordinary silkworm seeds which passed the official tests during the years 1931 to 1935 are given below:—

Years.	Number of producers.	Production (in grammes).
1931	6,269	277,795,965
1932	5,627	223,649,688
1933	5,343	271,299,588
1934	4,922	272,574,909
1935	4,342	244,614,732

At present, pure Japanese, Chinese, European and cross-bred cocoons are raised. This has resulted in the evolution of a type of beads yielding longer filament and heavier and larger cocoons. The National Sericultural Experimental Station has come to the conclusion after years of experiments that the crossed silkworm eggs between Japanese, Chinese, and European breeds of the first generation are best for the purpose for which they are intended. The following table indicates comparative values of essential properties of *Bombyx Mori* of Chinese, Italian and Japanese origin.

Comparative values of essential properties.

<i>Bombyx Mori</i> —	Elongation (Per cent.).	Tenacity (Drams).	Diameter (1,000 inches).	Rigidity (Relative).	Length of fibre (Reelable) (Yards).
China	15.8	2.6	71	19	1,000
Italy	15.8	2.6	68	20	600
Japan	11.6	3.1	69	32	2,000

Raising of cocoons is an entirely cottage industry in Japan characterized by the small size of the units engaged in production consisting of individual households. It is mostly a side-line of framers' families, specially of their female members. In fact, the court ladies under the leadership of Her Imperial Majesty the Empress have also been raising cocoons in the Imperial Palace from ancient times. The number of farm households engaged in cocoon raising in Japan at the beginning of 1937 was about 2,000,000, which constitutes one-third of the total farm households, while the number of workers participating in cocoon raising was well above 10,000,000. The quantity of cocoons produced per household in 1933 averaged approximately 48 kwan, but as shown elsewhere has somewhat declined since then.

There are two kinds of cocoons, namely, white and yellow. They are at present raised four times a year in warmer districts and three times a year in colder regions. In olden days, cocoons used to be produced once a year—during the spring. The spring cocoons appear in the market during the period covering middle of May to the middle of June. The summer crop a month later, the autumn crop in September and the late-autumn cocoons in October. There are three different ways of hatching practised in Japan for cocoon-raising, viz., Mono-voltine, Bi-voltine and Multi-voltine. The last-named species raises cocoons three times a year. To amplify this, it may be explained that in natural conditions the insect *Bombyx Mori* produces but one brood per year, that is, the life-cycle from egg to grub, chrysalis, moth, and back to egg, is completed only once per annum. It is therefore called Mono- or Uni-voltine. But the period of the life-cycle is not fixed, and a Uni-voltine moth can be changed to a Bi-voltine or a Multi-voltine by artificial stimulus of the eggs. The eggs of the *Bombyx Mori* can be hatched in thirty days (instead of nine months) by incubation at a temperature gradually raised from 70° F. to 75° F., followed by refrigeration. The worms are thereafter kept at between 75° F. and 80° F. Ninety per cent. of the total output of cocoons in Japan are usually of superior quality and are known as "Jomayu" or first-grade cocoons. The silk turned out from them is mainly exported. The inferior cocoons known as "Tainamayu" and "Kuzumayu" or waste cocoons are used as raw materials for manufacturing spun silk yarn, floss silk, etc. The annual silk cocoon production in Japan is above 300,000,000 kilogrammes worth about Yen 400,000,000.

4. The commercial side of the Industry at this stage consists of the sale of cocoons and the purchase of egg-papers. In former days, brokers used to visit every farmer to sell egg-papers and purchase the cocoons. At present in many districts the farmers have their own co-operative societies called "Sangyo Kumiai", and through these organisations joint sales and purchases are conducted. Many of the organisations engage in stifling of cocoons in heated ovens as well as reeling raw silk, some maintaining their own power mills. In some parts, however, the brokers are still found playing an important rôle in the industry. They supply, as in early days, egg-paper to the farmers and purchase cocoons from them which they turn over to the wholesale dealers who have accommodation to stifle the cocoons in heated ovens, and supply the dried cocoons to the market or to the mills. Again, the raw silk from the farmers' co-operative organisations or from the mills are supplied to the weavers and exporters through the brokers or merchants. In order to secure equity in the disposal of cocoons, it has been found advisable to adjust seasonal production by averaging out the supply on the market. With this object in view, the Government endeavoured to popularize the sale of dried cocoons, and adopted various measures so as to encourage the formation of associations for drying the cocoons jointly. Subsidies have also been granted to owners of dried cocoons warehouses. In 1935, there were 67,180 people found to be working as brokers in Japan for buying and selling cocoons.

5. The number of cocoon-raising households in Japan, which stood at 1,670,000 in 1915, gradually increased until it exceeded 2,217,000 in 1929, which bore a percentage of 40 to the whole number of agricultural families in Japan. The sudden decline in the demand for raw silk in the U.S.A. owing to the onset of depression in the autumn in 1929 had its repercussion on the production of cocoons in Japan in 1931 which registered a sharp fall of over 50 per cent. in value notwithstanding an increase in quantity. The worst effect of the American trade depression upon the Japanese sericultural industry was seen in the value of cocoons produced, the lowest figure since the World War being recorded in 1934. A remarkable decrease in the quantity produced was partly responsible for this great decline, but the main contributory cause was the fact that the price of cocoons in 1934 fell to one-fifth of that in 1925 or one-third of that in 1929. The total

export value of cocoons and raw silk declined sharply, its percentage to the total Japanese export trade being 37 in the years 1928 and 1929 as against only 13.5 per cent. in 1934. In 1935, however, the industry showed considerable recovery owing to the price advance and larger export of raw silk. In 1936 there was decline in the quantity of raw silk exported but the value showed an advance by Yen 16 million. The quantity exported declined further in 1937, but the value again appreciated by about Yen 15 million.

6. In a recent forecast of the quantity of cocoons available from silkworms raised in summer and autumn of 1937 it is stated that a decrease of 4,266,319 kwan is probable as compared with the previous year's yield for this crop of 41,499,700 kwan (1 kwan=3.75 kilo.) representing a decrease of 10.3 per cent. The 1937 summer and autumn crop is estimated to be 37,204,270 kwan of white cocoons and 29,130 kwan of yellow cocoons. The drop in the 1937 crop is ascribed to the reduced size of many plantations owing to the craze for mulberry tree gardens, retarded growth of mulberry leaves through a drought, shortage of labour due to the China affair, impaired development of autumn silkworms in infancy in some breeding districts and effects of the storm of September 11, 1937, which deteriorated mulberry leaves causing much sickness of silkworms in several districts. It is expected that the spring crop for 1938 will register a further shrinkage on account of shortage of farm labour, stringent supply of fertilisers, high commodity prices and various other factors.

7. The cost of production of cocoon has in recent years greatly decreased as a result of considerable reduction in the cost of mulberry leaves and labour. Mulberry leaves account for 50 per cent. of total production expenditure, while labour contributes 30 per cent. of the total cost. Again, about 40 per cent. of the cost of the mulberry leaves is represented by expenditure on fertilizers, and as a result the cost of production as a whole is greatly influenced by fluctuations in the price of fertilizers. The next item in the production of cocoons is wages contributing about 30 per cent. of the total cost. As the production is carried on by household units, the industry depends almost solely on family labour. Investigation conducted in 1934 by the Japanese Ministry of Agriculture and Forestry showed that the number of sericultural units depending upon family labour accounted for more than 83 per cent. of all sericultural households. According to a calculation made in 1933 by a high Japanese authority on sericultural industry, the average cost for producing 1 kwan (8.26719 lbs.) of cocoons in Japan is as follows:—

Spring cocoons.

	Spring cocoons.			Sugar and Autumn cocoons.		
	Yen	Sen	Rin.	Yen	Sen	Rin.
Mulberry leaves	2	39	5	2	84	1
Labour	1	21	0	2	10	0
Ground and Building expenses .	0	21	0	0	19	8
Utensils	0	29	0	0	27	7
Cost of seeds	0	20	4	0	28	0
Cost of consumed articles .	0	17	7	0	12	4
Taxes and rates	0	12	4	0	10	5
Sundry expenses	0	08	1	0	08	0
	<hr/>			<hr/>		
	5	09	1	6	00	5

The following table furnishes statistics of cost of production of cocoon and their prices for the years 1923 to 1935:—

Years.	Cost of Production.		Prices (best quality).	
	Spring Cocoons.	Summer and Autumn Cocoons.	Spring Cocoons.	Summer and Autumn Cocoons.
1923 . .	9.99	10.53	11.40	9.11
1925 . .	7.82	8.25	11.25	10.07
1927 . .	7.48	7.13	7.18	4.77
1929 . .	6.99	6.25	7.57	6.53
1931 . .	3.78	3.45	3.08	2.96
1933 . .	3.82	3.76	6.25	4.27
1934 . .	3.56	3.74	2.52	2.38
1935 . .	3.54	3.96	3.81	5.37

For the current year the Silk Cocoon Price Committee of Shizuoka Prefecture consisting of leading sericulturists and silk reelers chosen by the prefectural officials has estimated the production cost of spring cocoons per kwan as follows:—

	Yens.
Estimated cost of labour, mulberry leaves and other items self-supplied	1.17
Self-supplied labour	1.38
Heating expenses self-supplied . . . . .	.06
Miscellaneous expenses . . . . .	.16
Total self-supplied expenses	2.77

Cash disbursements

	Yens.
Operation cost and mulberry cost (including cost of fertilizer)	1.57
Cost of silk egg-cards . . . . .	.23
Labour cost . . . . .	.20
Heating expenses . . . . .	.10
Miscellaneous . . . . .	.50
Total cash disbursements	2.60

From the above-mentioned total production cost of Yen 5.37, income of about 70 sen from by-production is to be deducted, leaving a net production cost of Yen 4.67. As compared with the previous year this shows an increase of 58 sen in the production cost.

8. The next or final stage is silk reeling or the stripping of cocoons which is undertaken after the dried cocoons have been boiled and spun. Silk so reeled then becomes marketable as raw silk. Most Japanese raw silk is imported into the U.S.A., the largest buyer, direct from the reeling and gets twisted at throwing-mills on machines called "spinners" or throwing-machines. "Throwing" means twisting of two or more reeled threads together in order to produce a hard thread. Silk reeling demands a high standard of proficiency in those who practise it successfully. Generally it takes three years for a reeler to become skilled enough for reeling commercial silk. More than 90 per cent. silk reelers in Japan are girls "bred to the

trade" who are extraordinarily skilful. With the development of modern reeling mills or filatures, high speed reeling is being practised in order to ensure more economical and larger production. In Japan, the usual speed adopted for reeling is above that of other countries, namely 10 feet per second. The reels have a periphery of 24 inches, and revolve at 300 revolutions per minute. One reeler girl serves five basins with four or five cocoons running in each. She replaces one cocoon every three seconds, on the average. The reeler's main task during the reeling is the replacement of cocoons when the filaments break or the cocoons are stripped, and the addition of extra cocoons when the diameter of a thread varies to abnormally fine. The diameter of each thread varies continually, and it is only the skilled eye of the operative that can succeed in detecting the changes. At the time of joining new filaments, the reeler girls give them a sling with their little fingers which wind them around the running ones so that they are carried along by them and incorporated successfully into the threads. This slinging is the most difficult part in reeling, and on its skill depends the evenness of silk and the ultimate good price. It depends absolutely on personal dexterity. In recent years, a few mechanical devices have been tested for use in slinging but have not proved very successful. In Japan, China or Italy where skilled labour is to be found, they have not been put in use.

After reeling, the skeins are re-reeled and dried during that second process, either in a drying-room or on reels rotating in boxes heated by hot air to between 90° and 100° F. One operator controls twelve re-reeling units. During re-reeling the silk is graded, skeins being taken for sizing standardisation—usually four skeins per day. In the next process the skeins are twisted, the average operator twisting some 700 skeins in an eleven-hour day. Then a colour test is applied in an inspecting room with black walls and a northern sky light, and there the skeins are re-graded according to colour. The silk now ready for the market is found into bundles each of thirty lines with a cotton thread. The bundles are called "books" (4-6 lb. each) compressed in power presses. The books are then wrapped in tissue paper and packed in boxes, 16 in each. Or else they are baled, 28 to 30 together, and enclosed in oiled paper, covered with matting. One such bale weighs 140 to 145 lbs. The raw silk is then closely inspected in the State Silk Conditioning House established at Yokohama and Kobe which is the greatest of the kind in the World in scale and modern equipment. The tests are made as to winding, evenness, tenacity, elongation, cohesion, etc. After this the raw silk is classified into ten grades, viz., Special, AAA, AA, A, B, C, D, E, F and G. The D grade is fixed as the standard for transactions on the market.

9. Silk reeling which had long remained a household industry was revolutionized in Japan in the third year of the Meiji Era (1871), when for the first time in this country the filature was installed in the city of Maebashi. Other sericultural districts followed suit in due course. A great advance has since been made in both technical side and management of the silk industry. With the subsequent rapid development of the export of raw silk, silk reeling gradually shifted from a household to a modern industry. On the other hand, reeling hands and feet also showed remarkable progress since the first part of the Taisho Era (1911-1925) with the expansion of the production of silk threads for domestic consumption. In order to meet any adverse effects of raw silk, price fluctuations reduce cost of production and to supply new kinds of raw silk, it was necessary to employ larger capital. In the circumstances, the household industry of reeling either by hands or feet has had gradually to give way to mechanical reeling with the filature, and the silk producers have more and more turned to the mechanization of the industry. The advent of the rayon industry as a formidable rival has accelerated this development.

There are at present about 50,000 large and small filatures in Japan of which approximately 3,000 produce the machine-reeled raw silk for export. At these filatures, about 330,000 young female operatives are employed. The

total number of filatures has decreased year after year recently, in spite of a gradual increase in raw silk production. This merely means that filatures using handicraft methods are being more and more supplanted by large-scale mechanized filatures and also in many cases small-scale factories have been merged into large plants in order to effect rationalization of power, machinery and business management. The following tables, in which the number of filatures and basins are classified by methods of reeling, for instance, indicate that the number of small-scale dupion filatures has been steadily decreasing in recent years.

FILATURES BY METHOD OF REELING.

Years.					Number of Filatures in operation.	Basins in opera- tions.
<i>Machine-Reeling.</i>						
1932	.	.	.	.	3,356	277,800
1933	.	.	.	.	3,218	267,836
1934	.	.	.	.	3,013	249,724
1935	.	.	.	.	2,738	235,488
1936	.	.	.	.	2,408	222,247
<i>Hand-Reeling.</i>						
1932	.	.	.	.	49,454	64,803
1933	.	.	.	.	44,736	57,692
1934	.	.	.	.	42,553	54,834
1935	.	.	.	.	38,456	48,304
1936	.	.	.	.	34,445	45,564
<i>Dupion.</i>						
1932	.	.	.	.	7,651	22,814
1933	.	.	.	.	6,443	18,051
1934	.	.	.	.	5,602	16,482
1935	.	.	.	.	4,509	13,865
1936	.	.	.	.	4,978	12,871

Number of Mechanical Reeling Factories and their Basins.

Year.	Total Number.		Less than 10 basins.		10—50 basins.		50—100 basins.		100—300 basins.		300—500 basins.		Over 500 basins.	
	Number of factories.	Number of basins.	Number of factories.	Number of basins.	Number of factories.	Number of basins.	Number of factories.	Number of basins.	Number of factories.	Number of basins.	Number of factories.	Number of basins.	Number of factories.	Number of basins.
1915 . .	4,309	205,888	1,909	..	1,113	..	720	..	567	..	..	..	..	..
1923 . .	3,768	285,525	979	2,718	1,236	32,999	756	50,299	574	91,774	102	38,947	90	62,538
1933 . .	3,218	267,836	339	2,015	1,300	36,246	766	48,992	642	101,782	119	46,315	51	32,486
1934 . .	3,013	349,724	304	1,922	1,240	24,430	723	47,922	295	93,514	98	37,820	52	34,040
1935 . .	2,738	235,488	256	1,564	1,155	31,952	625	42,167	547	86,589	102	38,722	53	34,494

10. The silk reeling enterprises are classified into two major groups, viz., the individual concerns and the co-operative industrial societies. The former largely consist of corporations and partnerships, or such other forms as are popular in the Japanese industry and overwhelmingly predominate both in the scale of plants and the number of mills. The latter enterprises are under a co-operative system raising farmers from mere producers of raw material to manufacturers and distributors of raw silk. According to the Ministry of Agriculture and Forestry, the equipment of these two groups of enterprises in April, 1937 were:—

	Number of filatures.	Number of basins.
Individual concerns	2,009	234,653
Co-operative Industrial Societies	323	43,289
	<hr/> 2,332	<hr/> 277,942

The annual production of raw silk in Japan totals about 700,000 bales (100 kin, or 133½ lbs. each) valued at Yens 500,000,000.

Since 1929, the production of Raw Silk in Japan has more or less remained on the same level, excepting a minor boom in 1934. The following statistics indicate the production of Raw Silk in Japan in recent times:—

I. Output of Raw Silk (in 1,000 kwan).

—	Total Output	Machine reeled silk.	Hand reeled silk.	Dupion.	White.	Yellow.
1910-14 . .	3,546	2,614	714	218	Figure not	available.
1925-29 . .	9,829	8,723	441	665	7,556	2,272
1925 . .	8,284	7,231	461	592	6,822	1,462
1929 . .	11,292	10,052	414	826	8,247	3,046
1930 . .	11,365	10,179	461	725	8,097	3,268
1931 . .	11,683	10,524	411	747	8,036	3,646
1932 . .	11,091	10,070	337	684	7,806	3,285
1933 . .	11,243	10,206	310	637	8,429	3,813
1934 . .	12,065	11,180	355	529	8,785	3,280
1935 . .	11,629	10,890	296	442	Figure not	available.

II. Output of Raw Silk (in bales).

	Quantity in bales.	Value in Yen.
1932	693,170	454,457,838
1933	702,676	497,740,808
1934	754,056	398,369,167
1935	726,830	499,767,191
1936	705,000	517,244,009

III. Arrivals of Raw Silk at the Raw Silk Market.

	Piculs.
1935	568,853
1936	513,969
1937	527,962
1937—	
January	31,612
February	33,702
March	43,711
April	40,809
May	38,596
June	30,937
July	50,319
August	52,986
September	54,900
October	50,047
November	51,521
December	48,824
1938—	
January	29,817
February	33,012
March	43,028
April	40,825

IV. Index of Production of Raw Silk (monthly average 1928=100).

	1937.					1938.		
	August.	Septem-ber.	October.	Novem-ber.	Decem-ber.	Janu-ary.	Febru-ary.	March.
Not seasonally adjusted.	120	124	113	117	110	68	75	119
Seasonally adjusted.	90	89	93	97	95	110	128	122

It will be observed that of the different methods of production employed, machine reeling has, in recent years, been responsible for more than 90 per cent. of the total raw silk output in Japan.

11. With regard to the cost of production of raw silk, about 30 per cent. of the net cost is accounted for by reeling, the remaining being disbursed for the purchase of cocoons. Production costs in machine-reeling are the largest. It is estimated that hand-reeled and dupion silks are manufactured at a cost below 80 per cent. of that necessary for the production of machine-reeled silk. This is due mainly to the nature of the machine-reeling industry which is mostly engaged in the production of high grade articles for export. The cost of production and sale of machine-reeled raw silk (excluding the cost of cocoon) in a representative prosperous year is as follows:—

Statement showing expenditure required for production and sale of Raw Silk (Machine Reeled). Cost in Yen per 100 Kin of Raw Silk.

(Comparison of the Professional Mills and Industrial Co-operative Mills, as well as average of all kinds of mills.)

Items of Expenditure.	Professo- nal Reel- ing Mills.	Industrial co-opera- tive mills.	Average for all mills.
	Yen.	Yen.	Yen.
Salaries and Bonuses to Staff .	9.08	10.32	9.19
Wages, allowances and prizes to workers	50.98	51.86	51.06
Fuel	18.22	22.48	18.58
Electric Power and light . .	2.97	3.75	3.03
Provisions	15.77	17.75	15.93
Insurance	1.34	1.75	1.38
Packing charges	1.81	1.48	1.78
Commission on sales of silk .	5.02	8.53	5.87
Charges paid for stifling by others	3.62	1.31	3.25
Commission for Purchasing cocoons	3.98	2.94	3.92
Expenses for recruiting workers	0.28	0.63	0.29
Storage	1.19	0.74	1.15
Transportation charges	6.81	3.16	6.50
Correspondence	0.91	0.84	0.91
Travelling Expenses	2.49	1.63	2.42
Rates and taxes	2.33	1.57	2.27
Interest	15.98	19.81	16.31
Cost of articles consumed . .	2.24	2.74	2.28
Ground rent	0.81	1.27	0.85
Expenses for measures to promote welfare of the workers . . .	3.45	3.56	3.46
Repairing expenses	5.06	5.93	5.13
Sundry expenses	15.80	16.08	15.83
Total	170.72	180.13	171.39

It will be seen from this statement that the cost of production per 100 kin (or one bale) of raw silk is Yen 170.72 for Professional or Commercial Reeling Mills and Yens 180.13 for Industrial Co-operative Mills, the average for all factories being Yens 171.39. The importance of wages, etc., in the cost of production is self-evident and establishes the relative advantage of the industry in the stage of a handicraft. The business condition in Japan at present is rather abnormal because of the Sino-Japanese hostilities. Due to the conflict, labour is scarce and wages as well as fuel and other charges have increased. This year's cost of production of raw silk (excluding the price of cocoon) has been worked out at Yens 180 per bale (or 100 kin). The cocoons required for one picul or 100 kin of raw silk will cost the reeler this year Yens 566.40, so the total net cost of production will come to Yens 746.40.

As already stated, female labour predominates in the silk reeling industry as in other textile industries in Japan. The nature of the industry requires delicate manual skill and this naturally induces the employers to train highly skilled operatives. Most of the female workers are recruited from the rural

districts. Primary education, for both boys and girls, is compulsory throughout Japan, and workers are recruited only after they have completed their education which is of a very practical nature. It is said that a silk reeler in India can reel at best about 8 ounces of raw silk per day, while a skilled Japanese reeler girl, reeling 8 threads at once at 10 feet per second, produces six to eight times as much as an Indian reeler. Besides, the Japanese girl reels silk of a superior evenness and of standard size, in which directions, it is alleged, the Indian operatives lack in judgment and skill.

The question of reeling labour is really the most difficult of all the problems connected with silk and it is the cheapness of skilled labour for this purpose that constitutes the main advantage possessed by Japan. Apart from the shortage of labour that has arisen out of the present Sino-Japanese conflict, there is no labour problem in Japan thanks to the harmonious relationship that exists between Capital and Labour in this country. The following statements furnish statistics of operatives and the wages paid to workers engaged in different branches of silk reeling in Japan:—



सत्यमेव जयते

Statement showing Wages paid per Capita to Silk Reeling Workers.

Unit in Yen

Year.	Outdoor male workers.	Reeling female workers.	Re-reeling female workers.	Bundling male workers.	Bundling female workers.	Cocoon Boiling male workers.	Cocoon Boiling female workers.	Cocoon Selecting female workers.	Sundry male workers.	Sundry female workers.	General Average.
1925 .	1.60	0.99	0.39	1.26	0.99	1.07	0.87	0.74	0.96	0.72	1.00
1926 .	1.42	0.93	0.57	1.22	0.97	1.06	0.85	0.77	0.99	0.78	0.99
1927 .	1.37	0.95	0.50	1.20	0.99	1.08	0.86	0.79	0.93	0.75	0.98
1928 .	1.50	0.97	0.46	1.21	0.94	1.10	0.78	0.78	1.09	0.74	1.00
1929 .	1.49	0.95	0.53	1.22	0.90	1.06	0.69	0.75	1.05	0.74	0.97
1930 .	1.38	0.78	0.77	1.12	0.86	0.97	0.62	0.69	0.98	0.72	0.89
1931 .	1.28	0.64	0.66	0.97	0.70	0.94	0.64	0.61	0.78	0.59	0.79
1932 .	1.31	0.62	0.39	0.92	0.63	0.79	0.68	0.56	0.69	0.54	0.74
1933 .	1.33	0.60	0.38	0.87	0.62	0.76	0.53	0.63	0.84	0.54	0.70
1934 .	1.28	0.58	0.52	0.90	0.61	0.78	0.53	0.55	0.70	0.51	0.70
1935 .	1.24	0.64	0.60	0.87	0.65	0.76	0.56	0.57	0.69	0.55	0.71

Number of operatives engaged in the Silk Reeling Industry.

	1922.	1926.	1930.	1931.	1932.
Male . . .	27,345	33,062	36,830	36,185	30,120
Female . . .	526,837	450,280	472,294	450,204	398,643
Total . . .	554,182	483,342	509,124	495,449	428,763

	1933.	1934.	1935.	1936.
Male	28,055	27,450	26,174	23,921
Female	366,972	335,060	321,339	296,566
Total	395,027	362,510	347,513	320,487

12. Since cocoons account for about 70 per cent. of the cost of production of raw silk, and reeling is still dependent upon labour rather than upon machine power, it is natural that working capital represents the principal capitalization in the reeling industry, and that fixed capital is comparatively small. Constituting, as it does, the major portion of the working capital, fund requirements for the purchase of cocoons are not only very large but also of urgent nature. Before the Russo-Japanese War, the silk reeling industry was generally financed by raw silk dealers and prefectural banks. After that and more particularly after the World War, a shortage of funds began to be keenly felt owing to the general expansion of the industry. This naturally induced the urban banks to supply funds directly or indirectly. It was, however, only after the great earthquake of 1923, when funds in the hands of dealers were exhausted, that the financial centre of the silk reeling industry shifted from the provinces to the central money markets. At present, commercial banks hold the foremost place amongst financial agencies for the industry, being followed by the wholesale dealers. The Central Bank of Co-operative Societies, the Federation of Co-operative Credit Societies, and various other agencies under the management of raw silk exporters are not of much help from the point of view of capital accommodation.

13. Silk reeling is a highly speculative industry. This is due to the fact that in purchasing cocoons, the reelers have to base their transactions on

the existing prices of raw silk, naturally subjecting their business results to the price fluctuations of the raw silk market. The following statistical table indicates profits and losses in the silk reeling industry calculated by the Mitsubishi Economic Research Bureau for the five years 1930 to 1934:—

Profits and losses in the Silk Reeling Industry.

(In Yen per 1,000 kin.)

Years.	Market price of cocoons (per Kwan or 6½ Kin).	Yield of Raw Silk.	Net cost of cocoons.	Manufacturing costs.	Net cost of Raw Silk.	Market Price of Raw Silk.	Profit or loss.
1930	3.10	10.89	455	197	652	630	—22
1931	3.03	11.44	424	197	621	568	—53
1932	3.53	11.65	485	173	658	798	+140
1933	5.28	11.75	719	173	892	656	—236
1934	2.46	12.15	324	173	497	560	+63

The above figures are by no means absolutely complete and do not include a number of expenses such as raw silk conditioning charges and other items.

14. Silk markets for export and domestic consumption are managed in different ways. The export market organization is composed of wholesale dealers and exporters, and is quite simple in structure having no scope for the activities of brokers. The wholesale dealer is a legal entity who, at the request of the reelers, carries on transactions on commission basis. In addition to the wholesale dealers who supply the bulk of raw silk to the market, there are some large reelers who themselves undertake the sale of their own products, and also the Japan Federation of Raw Silk Sales Co-operative Societies which serves as selling agency for the Co-operative Societies. Including, according to law, all these suppliers of raw silk under the nomenclature of wholesale dealers, the number of dealers registered at Yokohama and Kobe at present is 79 (Kobe 33 and Yokohama 46). The exporter who exports silk on his own account and has to be registered also, plays the role of distributor in the international market. Yokohama and Kobe are the silk markets of Japan, both for the purposes of internal distribution and foreign trade.

Raw silk for export is subjected by law to conditioning of quality and determination of quantity at the State Silk Conditioning House (situated both at Yokohama and Kobe). As transaction in and export of non-conditioned raw silk is legally prohibited, the raw silk dealers are forced to arrange for the examination of the goods as soon as these are received from the reelers. Each bale of raw silk which has passed the necessary tests is labelled by the inspector and a certificate giving the result of the examination is handed over to the merchant. This certificate serves as a basis for transactions between the dealer and the exporter. Delivery of goods in spot transactions is effected within five days at the price agreed upon at the time of sale. In forward transactions, a contract is made

between the dealer and the exporter for delivery at a fixed future date, the sales being classified into two categories, viz., forward sales at previously fixed prices, and forward sales at unfixed prices. In the former, the price of raw silk is fixed at the time of the sale, while in the latter price is not fixed, only the basis and the date for fixing the price being agreed upon. Forward transactions are effected in accordance with the Export Raw Silk Regulations drafted by the dealers and exporters with special reference to custom and practices that have long prevailed in the trade. Transactions are required to be carried on in public, the details being registered at the Export Raw Silk Registration Office, which publishes a statement furnishing the total number of transactions and the average price of raw silk registered at the Office. The goods sold, either spot or forward, are delivered on behalf of the seller at a given place on the agreed date, together with the certificates of tests obtained from the Raw Silk Conditioning House and a sample of the silk appended for examination, which allows the exporter to re-examine the goods in question if necessary. The reelers' trade mark is then replaced by that of the exporter and the goods are ready for export when thus re-labelled.

15. As already stated, the price of Japanese raw silk depends upon the prosperity of the U.S.A., the largest silk-consuming country in the world. In spite of the recent phenomenal development of the rayon industry, it is safe to assume that with any business improvement in the United States, expanding the demand for high grade goods, natural silk will always come into favour in preference to artificial silk, the consequential rise in price of the pure silk yarn proportionally higher than the rayon yarn being regarded as only a matter of secondary importance. Thus the price of raw silk in Japan is not only subject to the law of demand and supply, but also to the fluctuations in exchange rates. The following statement shows the price fluctuations of raw silk in America and Japan:—

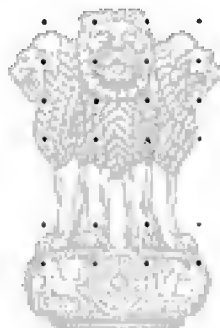
*Statement showing *Fluctuations of Raw Silk Quotations in New York, 1936-38.*

Months.	High.	Low
	\$	\$
1936—		
January	1.96	1.79
February	1.80	1.52
March	1.63	1.47
April	1.645	1.46
May	1.515	1.385
June	1.58	1.385
July	1.635	1.48
August	1.685	1.58
September	1.64	1.55
October	1.75	1.595
November	1.90	1.75
December	1.98	1.86

* New York futures quotations.

Statement showing Fluctuations of Raw Silk Quotations in
New York, 1936-38—contd.*

Months.	High.	Low.
	\$	\$
1937—		
January	2.12	1.92
February	1.975	1.795
March	2.02	1.805
April	1.975	1.765
May	1.875	1.73
June	1.83	1.725
July	1.935	1.775
August	1.795	1.745
September	1.73	1.615
October	1.605	1.51
November	1.55	1.42
December	1.475	1.435
1938—		
January	1.515	1.445
February	1.595	1.485



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Statement Showing monthly movement of Raw Silk price on Yokohama market.

(Yen.)

(Standard quality: per 100 Kin, 1331 lbs.)

	Janu- ary.	Febru- ary.	March.	April.	May.	June.	July.	August.	Septem- ber.	Octo- ber.	Novem- ber.	Decem- ber.	Ave- rage.
1925	{ High .	2,080	2,130	1,850	1,860	1,980	1,920	2,020	2,100	2,100	2,040	2,000	2,130
	{ Low .	2,020	2,040	1,770	1,790	1,850	1,910	1,910	2,030	2,040	1,930	1,920	1,770
	{ Average .	2,053	2,098	1,814	1,813	1,888	1,913	1,958	2,069	2,078	1,992	1,955	1,957
1930	{ High .	1,190	1,190	1,165	1,100	820	750	730	720	630	610	680	1,190
	{ Low .	1,155	1,140	1,100	1,100	750	670	690	560	540	560	570	540
	{ Average .	1,174	1,169	1,139	1,100	795	705	708	648	574	581	625	775
1931	{ High .	760	720	650	545	600	610	630	630	560	565	640	760
	{ Low .	660	655	545	510	500	550	550	535	525	535	525	500
	{ Average .	708	684	597	531	527	585	577	573	548	556	567	583
1932	{ High .	635	690	580	525	510	610	1,110	1,110	930	970	970	1,110
	{ Low .	650	610	500	415	390	500	600	860	850	860	860	390
	{ Average .	672	653	534	473	463	542	763	937	890	910	922	698

1933	High	925	720	690	820	880	1,090	1,005	839	940	735	640	600	1,090
	Low	685	660	630	645	760	830	840	815	740	645	520	535	520
	Average	770	694	655	728	796	979	954	837	851	713	586	555	705
1934	High	645	675	605	570	540	515	490	490	503	535	593	635	675
	Low	545	590	540	510	485	465	452.5	450	445	400	515	580	445
	Average	583	643	570	538	523	494	474	463	465	510	550	598	537
1935	High	660	645	610	635	635	605	695	835	895	1,005	990	995	1,005
	Low	620	595	575	580	590	575	590	675	785	835	890	830	575
	Average	634	617	597	607	614	592	632	754	830	912	931	874	713
1936	High	920	820	815	815	755	725	765	800	755	815	925	910	925
	Low	810	685	705	710	645	625	695	740	705	745	785	847	625
	Average	858	764	749	746	691	681	738	771	734	771	863	871	778
1937	High	955	910	955	910	837.5	800	907.5	860	855	792.5	770	710	830
	Low	885	865	860	825	797.5	790	835	817.5	790	735	665	692.5	794
	Average	916	884	906	873	819	829	880	841	827	767	713	685	827

Yokohama Raw Silk (price per picul).

	6 months forward.		Spot.	
	High.	Low.	Average.	Average.
	Y	Y	Y	Y
1935 . . .	991	557	702	717
1936 . . .	910	618	752	767
1937 . . .	947	648	808	830
1938—				
January . . .	699	667	684	683
February . . .	743	682	714	707
March . . .	734	678	716	713
April . . .	717	674	700	700
May . . .	711	689	701	701

16. The export amount of raw silk increased from 1,208,000 kin in the first year of the Meiji Era (1868) to 9,350,000 kin in 1907, and further to 52,100,000 kin in 1927, and attained the record figure of 58,000,000 kin in 1929. Due to wide variations in the prices of raw silk in recent years, the changes in the value of exports do not correspond with those of the export quantities as shown in the following table:—

Export of Raw Silk.

Year.	Quantity.	Value.	Price per kin.
	(1,000 Kin.)	Y1,000.	(Yen.)
1907	9,354	116,889	12.60
1921	26,202	417,124	15.92
1925	44,298	876,657	19.08
1927	52,177	742,265	14.22
1928	54,928	733,437	12.35
1929	58,095	784,150	13.49
1930	47,732	419,107	8.78
1931	56,058	356,932	6.36
1932	54,854	382,950	6.98
1933	48,403	391,192	8.02
1934	50,639	287,081	5.66
1935	55,499	387,793	6.98
1936	50,530	394,440	7.86
1937	47,337	307,118	8.60

The greater portion of raw silk produced in Japan is shipped to the United States, although in recent years the American intake has shown some decline. The following statement shows exports of Raw Silk from Japan classified by countries:—

Export of Raw Silk classified by countries.
(Quantity in 1,000 Kin and value ¥1,000.)

	1934.		1935.		1936.		1937.	
	Q.	V.	Q.	V.	Q.	V.	Q.	V.
India	408	1,789	1,363	5,535	728	3,872	1,099	8,400
Great Britain	2,287	14,237	2,843	21,450	2,893	23,628	3,467	31,430
France	3,657	20,334	3,479	23,764	2,770	21,771	3,026	26,111
Italy	157	997	16	130	1	11	29	269
Switzerland	17	101	38	264	16	142	50	433
United States of America	42,591	239,568	46,657	328,910	42,762	335,949	37,898	325,225
Canada	75	411	12	70	102	823	74	727
Australia	652	4,017	508	4,232	640	5,231	863	8,132
Other countries	864	5,338	397	2,675	423	3,379	831	6,331

17. With regard to the ocean freight rates on silk conveyed from Japan to different countries, the rates observed are those generally known as "Conference rates", i.e., standard rates mutually agreed on by the principal foreign and Japanese shipping lines. So far as could be ascertained, these standard rates are strictly observed by the members to the agreement. In respect of raw silk carried to Europe, however, three companies, viz., P. & O. S. N. Co., Messageries Maritimes Cie and Nippon Yusen Kaisha who have formed themselves into a pool and enjoy a virtual monopoly in its transportation to Europe, jointly fix freight charges to Europe and Mediterranean ports. The present freight rates on silk cargoes shipped from Japan to the principal overseas markets are given below:—

Minimum freight rates from Japan to Bombay and Colombo charged by Nippon Yusen Kaisha, Osaka Shosen Kaisha, Peninsular and Oriental Steam Navigation Company, and Dollar Steamship Lines:—

For Bombay and Colombo—

Silk goods (Raw Silk, Silk piecegoods, Spun Silk Yarn, Douppion Silk Yarn, Silk Waste)—2 per cent. nett *ad valorem* or Yen 43·00 nett per measurement ton of 40 cubic feet or weight ton of 20 cwt. whichever gives the higher return.

For Bombay only—

Silk Noil (Noil Yarn)—Yen 32·00 per ton of 40 cubic feet.

For Colombo only—

Silk Noil (Noil Yarn)—Yen 28·00 per ton of 40 cubic feet.

The following additional rates for direct discharge of cargoes of silk goods (Raw Silk, Silk piecegoods, Spun Silk Yarn, Douppion Silk Yarn, Silk Waste) at Karachi, Port Okha, Cutch Ports, Kathiawar Coast Ports and Marmagoa and Tuticorin are levied:

For Karachi and Port Okha—

$\frac{1}{2}$ per cent. *ad valorem* or Yen 8·00 per ton of 40 cubic feet.

For Cutch Ports—

Yen 18·00 per ton of 40 cubic feet.

For Kathiawar Coast Ports, Marmagoa—

Yen 8·00 per ton of 40 cubic feet.

For Tuticorin—

Yen 8·00 per ton of 40 cubic feet.

Minimum freight rates from Japan to Calcutta, Rangoon, Madras and Pondicherry charged by Nippon Yusen Kaisha, Osaka Shosen Kaisha, British India Steam Navigation Company, Limited, and Indo-China Steam Navigation Company, Limited.

For Calcutta and Rangoon—

Silk goods (Raw Silk, Spun and Gassed Silk Yarn, Waste Silk or Silk piecegoods)—2 per cent. nett *ad valorem* or yen 40·00 nett per measurement ton of 40 cubic feet or weight ton of 20 cwt.

Silk, Noil (Noil Yarn)—Yen 31·00 per ton of 40 cubic feet.

For Madras and Pondicherry—

Raw Silk—2 $\frac{1}{2}$ per cent. nett *ad valorem* or Yen 33·00 nett per ton of 40 cubic feet.

Silk goods—2 per cent. nett *plus* yen 9·00 nett per package or Yen 33·00 nett *plus* Yen 9·00 per package per ton of 40 cubic feet.

Minimum freight rates from Japan to Pacific Coasts of U.S.A. and Canada, to overland common points in U.S.A. and Canada and to Atlantic and Gulf ports in U.S.A., via Panama Canal.

These rates are observed by the members of the Trans-Pacific Freight Conference of Japan and the Japan-Atlantic Coast Freight Conference. The present members are:—

American Mail Line,
 Barber-Willhelmsen Line,
 Blue Funnel Line (Ocean Steamship Co., Ltd. and China Mutual
 Steam Navigation Co., Ltd.),
 Canadian Pacific Steamships, Ltd.,
 Daido Kaiun K. K. (Ocean Line),
 Dollar Steamship Line,
 Kawasaki Kisen Kaisha ("K" Line),
 Kokusai Kisen Kaisha,
 A. P. Moller (Maersk Line),
 Mitsui Bussan Kaisha (Mitsui Line),
 Nippon Yusen Kaisha,
 Osaka Shosen Kaisha,
 States Steamship Co. (States Line), and
 Yamashita Kisen Kaisha.



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	Pacific Coast.		Overland.		Atlantic Coast.	
	Contract.	Non-contract.	Contract.	Non-contract.	Contract.	Non-contract.
Silk (raw) including Wild or Tussah Silk per 100 lbs.	\$ 2-00	\$ 3-00	\$ 2-00	\$ 3-00	\$ 4-00	\$ 6-00
Silk (spun and Dupion) per 100 lbs.	2-00	3-00	2-00	3-00	4-00	6-00
Silk Goods, Fuji and Pongee and Spun (value not exceeding \$ 350 per 100 lbs.)	18-00 per 40 c. ft. gross measurement.	20-00 per 40 c. ft. gross measurement.	2-00 per 100 lbs.	2-50 per 100 lbs.	30-00 per 40 c. ft. gross measurement.	34-00 per 40 c. ft. gross measurement.
Silk, Thrown (crepe yarn) per 100 lbs.	2-80	3-00	2-00	3-00	4-00	6-00
Silk. Goods, not otherwise specified per 40 c. ft. gross measurement.	20-00 plus $\frac{1}{2}$ per cent. ad val.	24-00 plus $\frac{1}{2}$ per cent. ad val.	20-00 plus $\frac{1}{2}$ per cent. ad val.	24-00 plus $\frac{1}{2}$ per cent. ad val.	36-00 or 2 per cent. ad val.	40-00 or 2 $\frac{1}{2}$ per cent. ad val.
Silk Noils and silk waste per 40 c. ft. gross measurement.	10-00	12-00	8-00	9-50	18-00	20-00
Silk, mixed, spun, and staple fibre yam per 40 c. ft. gross measure- ment.	15-00	17-00	15-00	17-00	30-00	34-00
Silk wool mixed spun yarn per 40 c. ft. gross measurement.	20-00	24-00	20-00	24-00	36-00	40-00

(Contract rates means special rates available to a shipper who signs a contract with any of the participating lines.

Rates shown under the heading "overland" apply as ocean-carrying portion on through bills of lading via the Pacific Coast terminal ports destined only to an inland point in Canada east of the Saskatchewan/Manitoba boundary line and to points in the United States located in North Dakota, South Dakota, Nebraska, Colorado, New Mexico and in states east thereof).

The following are the present rates of freight on silk shipped from Yokohama or Kobe to certain places in Europe and Mediterranean coasts.

	Raw Silk.	Silk, Spun, Dupion and Tussah.
	per cwt. net	per cwt. net.
	Yen.	Yen.
London, Liverpool, Hamburg, Bremen, Marseilles, Naples, Venice, Genoa, Trieste, Malta, Port Said, Suez .	19	14
Manchester (via London)	22	17
Antwerp	20	15
Barcelona	21	16
Casablanca	21	16
Constantinople	23	17
Leghorn	22	17
Lyons	23.10	18.16
Milan	26.30	21.30
Odessa	30	25
Paris (via Havre)	24	19
Riga (via London)	22	17
Valencia	21	16
Novare (via Vintimille)	23	18
Lisbon (via London)	24	24
Copenhagen (via London)	22.50	17.50
Zurich	24.10	19.10
Alexandretta	29	24
Alexandria	23	18
Algiers	24	19
Beyrouth	29	24
Izmir (Smyrna)	23	17
Jaffa (via Port Said)	29	24
Piraeus	23	17
Port Sudan (via Port Said) . . . . .	...	19
Tripoli (Africa)	25	20
Tripoli (Syria)	29	24
Tunis (via Marseilles)	24	19

18. The unchallenged superiority that Japan has been enjoying in the production of raw silk in the world has been due mainly to the active encouragement rendered to the different branches of the sericulture industry both by the State and private bodies. Since 1874, the Government have undertaken various enterprises in promoting the industry on up-to-date lines by establishing various Experimental, Research and Instructional institutions at different centres. As already mentioned, a central research institute under the style of Raw Silk Experimental Station was established at Tokyo with branches in different prefectures throughout the country which carry on investigation and research in various lines of the raw silk industry in accordance with the special needs of these areas and make available the

results of such investigations to those engaged in the industry. As institutions for sericultural education, there are at present three sericultural colleges under State management at Tokyo, Kyoto and Ueda. Besides, there are a number of sericultural training schools in various districts where the actual workers (mostly female) are trained. These trained workers go about the villages and give necessary instruction and practical teaching to the farmers' families and mill-workers. Apart from these training schools, there are agricultural schools in the different Prefectures, where elementary knowledge in sericulture is also imparted. All these instructional and research activities are carried on under the administrative control of a special Bureau under the Ministry of Agriculture and Forestry. In Appendix I, attached to this Note will be found a statement showing State grants and subsidies advanced in recent years for the development of the Silk Industry.

19. It was not until the World economic depression set in that the Government took up the question of bringing the whole of the industry under intensive State control, with control over silkworm eggs and the establishment of a licence system for securing consolidation in the reeling industry and the wholesale trade as a fundamental policy. The first Government attempt to improve co-ordination in the industry was embodied in the promulgation of the Raw Silk Industry Law of 1911. Owing to the wide and varied phases of the business, the object proved difficult to realize, and it was only after 20 years when impelled by the effect of the American trade depression of 1929 the public began to clamour for Government help, that collective control over the industry was secured with the enactment of the Raw Silk Industry Association Law in 1931. The Law of 1931 divides the industry into six branches and provides for the formation of an association in every Prefecture, and the organisation of the local associations into a single federation for each separate branch. The federations thus created are at present as below:—

- (1) The National Federation of Silkworm-egg Card Producers' Associations (Zenkoku Sanshugyo Kumiai Rengokai).
- (2) The National Federation of Cocoon Producers' Associations (Zenkoku Yosangyo Kumiai Rengokai).
- (3) The National Federation of Filatures' Associations (Zenkoku Seishi Kumiai Rengokai).
- (4) The National Federation of Co-operative Raw Silk Manufacturers' Associations (Zenkoku Sangyo Kumiai Seishi Kumiai Rengokai).
- (5) The Raw Silk Traders' Guild (Kiito Tonyagyo Kumiai).
- (6) The Raw Silk Exporters' Association (Kiito Yushutsugyo Kumiai).

These six federations operate, in co-operation with Government institutions, under a supreme controlling body organised by them, known as the Central Raw Silk Association of Japan (Nippon Chuo Sanshi Kwai) which, as laid down in Article 69 of the Raw Silk Industry Association Law of 1931, is a legally constituted body set up to "facilitate better connection between the federations and local associations, to promote the development of, and exercise control over the Silk Industry". The Committee of the Central Raw Silk Association, which is the voting machinery of the organisation, consists of 30 representatives selected by the affiliated federations (each member federation is allowed to select five representatives) and special representatives appointed by the Government (whose number is limited to under one-fifth of the total number of representatives). The Central Raw Silk Association is not only responsible for the enforcement of the various control measures over all lines of the raw silk industry, but also acts as a channel through which the raw silk interests approach the Government for the materialisation of their schemes. Moreover, the Association conducts various studies and investigations for the promotion of the industry and undertakes publicity work, etc., in this connection. The functions of the

six organisations affiliated to the Central Raw Silk Association of Japan may be briefly described as follows:—

The National Federation of Silkworm Egg-card Producers' Associations.—This Federation was formed to execute necessary measures for the promotion of closer co-operation and co-ordination among, and for the realization of common aims of, the prefectural egg-card producers' associations, which are organised by egg producers in different prefectures. The principal function of the Federation consists of standardisation of silk-eggs, encouragement and guidance of egg producers and investigation and research work in connection with the production of these eggs. Efforts are being made by the Federation to expand and strengthen the co-operative association.

The National Federation of Cocoon Producers' Associations.—This Federation is the national control machinery for two million sericulturists. It controls the prefectural federations of cocoon producers which consists of the cocoon raisers' associations of different countries of the respective prefectures. The Cocoon Producers' Associations in different farming communities comprise the county associations. Under the National Federation of Cocoon Producers' Associations, various institutions are operated for the unification of the quality of silk cocoons, guiding of sericulturists, improvement of trading methods for silk cocoons, prevention of silkworm diseases and other necessary matters. The federation has also been actively directing its efforts towards setting up a savings system for emergency and a mutual aid system for the purpose of stabilizing the livelihood of sericulturists.

The National Federation of Filatures' Associations.—This is a controlling body for silk reelers, consisting of the associations organised by filature owners (excluding those who operate dupion, wild silk cocoon reeling and hand reeling plants) in different prefectures. The Federation conducts business in connection with the standardisation of grades of raw silk, guidance and encouragement of the silk reelers, promotion of the welfare of operatives employed in the silk reeling industry, and control over and co-ordination in the reeling industry. Of late the Federation has also taken up a scheme, in conjunction with the National Federation of Co-operative Silk Manufacturers' Associations, designed to solve the difficult question of eliminating surplus reeling hasins in the existing filatures.

The National Federation of Co-operative Raw Silk Manufacturers' Associations.—This Federation is the controlling machinery for filature associations organised by sericulturists belonging to the co-operative industrial societies in different localities. It conducts business regarding rationalization of silk cocoon trading, unification of raw silk grades, guidance and encouragement to the co-operative raw silk manufacturers' associations.

The Raw Silk Traders' Guild.—All raw silk produced in various areas, except that consumed locally, is carried to the two principal distributing centres, Yokohama and Kobe, whence it is distributed by wholesale traders known as "tonya". There exist two raw silk traders' associations, one at Yokohama and the other at Kobe. These two associations or guilds also serve as a means to improve, develop and control the various aspects of the raw silk business and are also engaged in important investigations and researches in respect of the silk industry.

The Raw Silk Exporters' Associations or Guilds.—As in the case of the Traders' Guilds, there are also two raw silk exporters' associations, one at Yokohama and the other at Kobe. Each of them is organised by raw silk exporters and adopt and execute various measures and conduct investigations and research work designed to improve and unify raw silk trading and exporting methods. Raw silk for exports is subjected by law to conditioning of quality and determination of quantity at the State Silk Conditioning House. Business in or export of non-conditioned raw silk is prohibited. Each bale of raw silk having passed both examinations is labelled by the Inspector and a certificate giving the results of the examination is handed

to the merchant. This certificate serves as a basis for transactions between the dealer and the exporter.

In addition to the foregoing organizations under the Law of Raw Silk Industry Association, there is also another non-official but influential body known as Dai Nippon Sanshi Kwai or the Greater Japan Raw Silk Society. The Society was founded in 1892 for the purpose of improving the silk industry in Japan.

20. The Japanese Government's policy of encouraging the production of Raw Silk of high quality at a low cost has been implemented through the introduction of a long series of legislative measures and ordinances touching almost every phase of the Silk Industry. Of these, so far as the exercise of control is concerned, the following are important:—

- (1) *The Silkworm Eggs Control Law of 1934.*—This provides that the Government shall supervise the production of original eggs and aims at the improvement and standardisation of eggs by granting the prefectures a monopoly of the production of original silkworm eggs. The competent Minister has been empowered to issue control orders when deemed necessary.
- (2) *The Silk Reeling Industry Law of 1932.*—According to this Law, those who are desirous of carrying on silk-reeling business are required to obtain licences from the competent Minister, and factories qualified to receive such licences must possess a plant equipped with over 150 cauldrons in commercial filatures and over 100 cauldrons in co-operative filatures. The main object of this legislation is to provide a certain standard as regards the management of the industry, to prevent an excessive number of mushroom enterprises, to readjust the present condition of the industry by encouraging the amalgamation of small factories, and thus strengthen the industry against future depressions.
- (3) *The Raw Silk Export Marketing Law, 1934.*—The object of the Law is to secure a standard in raw silk transactions, and to promote the amalgamation of wholesale dealers. It provides for the registration of all transactions in raw silk and institutes a licence system covering the wholesale dealers.
- (4) *The Raw Silk Industry Law of 1931.*—(Already described in para. 19 above).
- (5) *The Raw Silk Price Stabilization Law of 1937.*—This is the most recent and perhaps the most important legislation that the Government have introduced in recent times. The Law which was promulgated in April, 1937, may be described more fully. The main object of this law is to prevent the unusual fluctuation of raw silk price, that is, to maintain a reasonable standard of price which is essential for the sound development and stabilization of the silk industry in Japan. Each year the Government sets a standard selling price in order to check an unusual rise, and also a standard purchasing price to prevent any extraordinary decline of the market price of raw silk. These Standard Prices of the various grades of raw silk are determined by the Minister of Agriculture and Forestry in the month of January every year. The method employed for fixing the Standard Selling and Purchasing prices is this: First the Standard Index Price of Raw Silk is figured out and a certain price is assumed somewhere between 30 and 40 per cent. above this price, which is further adjusted by comparison with the prices of competitive fibres to be the Standard Selling Price. The Standard Purchasing Price is likewise determined from an assumed price somewhere between 30 and 40 per cent. below the Standard Index Price, and adjusted by consideration of the cost of production of cocoons and raw silk. (In this connection

it may be explained that this Standard Index Price of Raw Silk is determined by multiplication of three terms, (a) the geometric average of the comparative ratio of raw silk price index based upon 1901 as 100 per cent. to price index of general commodities, and the comparative ratio of raw silk price index based upon 1924 as 100 per cent. to price index of general commodities, (b) the average of price index of general commodities for the six months prior to the date of price determination, and (c) the average raw silk price of the month of October, 1900 which was Yen 819-61).

With the enforcement of the Raw Silk Price Stabilization Law on July 28th, 1937, a permanent Committee called the Raw Silk Price Stabilization Committee under the chairmanship of the Minister of Agriculture and Forestry and consisting of trade representatives and experts of high calibre and experience, was formed. The Committee is run by 25 competent officials. After its constitution and in its first meeting held on September 18th, 1937, the Committee fixed the Standard Selling Price of Raw Silk at 950 yen and the Standard Purchasing Price at 520 yen, effective from that date to the end of May, 1938, for the raw silk of "D" grade, white 13-15 denier produced during 1937. In order to implement the decisions of the Raw Silk Price Stabilization Committee in the event of the market situation necessitating the operation of any such price stabilization, another Association consisting of representatives of silk reelers of Japan and Korea, and raw silk dealers and exporters of Yokohama and Kobe was formed. The Association's functions are to conduct the buying and selling operations, at prices fixed by the Committee and act as agents for the joint custody of raw silk as well as to interest themselves in the various measures formulated for the stabilization of raw silk prices.

In accordance with the provisions of the Raw Silk Price Stabilization Law, the Government have recently undertaken further research works and preparation of various statistical data relating to the raw silk industry of Japan. These statistics are to be published periodically in Tokyo and New York. The main items of these statistics are:--

- (a) *Cost of production of cocoons.*—This survey will cover a period from November 1, to October 31, of the following year. Date of publication not yet fixed.
- (b) *Cost of production and sales of raw silk.*—This survey is to be conducted twice a year, from June 1 to November 30, and from December 1 to May 31.
- (c) *Cocoon stock.*—This survey is to be conducted three times a year, on March 1, June 1 and December 1. It will include not only those stocks owned and stored by the filatures but also stocks in agricultural warehouses, commercial warehouses, on transportation facilities, farmers' stocks, and cocoon drying and stifling institutes without exception. This is to be published in terms of raw weight about two weeks after each survey.
- (d) *Raw Silk stock.* This survey is to be conducted once a year on June 1 and will cover all stocks owned by filatures, dealers, exporters, weaving and knitting mills, throwsters, warehouses, and banks without exception. The result will be published about two weeks later.
- (e) *Monthly domestic production and consumption of Raw Silk.*—This survey is to be conducted with regard to the production of filatures, and consumption by the weaving and knitting manufacturers, throwsters and all other consumers of raw silk. The statistics will be published by the middle of the following month.

21. The importance of the cocoon raising industry to the agricultural economic of Japan may be gauged from the fact that during recent years

the income per household from this source has been about 15 per cent. of the total agricultural income. Silk production is similarly of considerable importance to the industrial output of the country amounting as it does to over 8 per cent. of the total value of the whole industrial production. The Japanese Government and the Associations connected with sericulture are thus vitally interested in the progress of the industry and have assisted it in the manner already indicated in the preceding paragraphs. This year the industry has been subject to pressure from an unusual combination of adverse factors—contraction in the supply of labour due to the China incident, higher prices of fertilisers and other commodities, and the low prices for raw silk resulting from a contraction in the demand of this article from the United States which normally takes about 95 per cent. of the total exports. Various remedial measures have been under consideration to meet the situation. Recently the Agriculture and Forestry Ministry called a conference of Chief officials of the Sericultural Sections of all Prefectures for this purpose. The following measures were considered:—

- (1) Adoption of a co-operative system for raising silk worms inclusive of co-operative purchase of necessary articles and co-operative business operation.
- (2) Attainment of complete self-sufficiency in supply of labour fertilisers and mulberry leaves.
- (3) Rationalisation of disposal of cocoons.
- (4) Intensive utilisation of by-products and wastes.

In regard to the question of utilisation of by-products, it has been estimated that on the assumption that 45 million kwan of silk cocoons would be produced this Spring about 450 million kwan of waste mulberry branches would be available throughout the country. As these are being sold at 5 sen per kwan as firewood the total value reaches 22.5 million yen for the Spring season alone. If this material could be utilised for making pulp the value would be much greater even with the addition of transportation costs. Another important item among the by-products is "keba" or cocoon lint. It is estimated that the collection of "keba" throughout the country would aggregate approximately 1 million kwan for the last season, and the silk raising farmers would be able to obtain by its sale 3 million yen. The Japanese Government has further agreed to increase subsidies for the improvement of sericultural equipment and has appropriated funds to encourage discovery of fresh uses for silk. In addition to these measures it is now reported that at the instance of the Sericultural Bureau the Agriculture and Forestry Ministry has agreed to give positive encouragement to silk raisers to increase the production of silk cocoons of high fibre yield to enable woollen goods manufacturers to mix raw silk in their products. The outstanding features of the plan are as follows:—

- (1) Production of high fibre yielding cocoons to be brought up to 34 million kwan by 1942.
- (2) Establishment of a special company for the effective execution of the production increase plan with power to buy up and dispose of the special silk cocoons.
- (3) Enactment of legislation to cause manufacturers of woollen goods to mix raw silk in their products on a compulsory basis.
- (4) Positive encouragement to be given to the following industries in which raw silk is used:—ornaments made of silk, silk gut, tracing cloth, ropes for whaling, artificial leather belts, etc. and fishing nets.

22. Statement indicating various important legislative measures introduced by the Japanese Government for the promotion of the silk industry (Appendix II) together with certain additional statistical statements (Appendix III) are appended herewith.

APPENDIX II.

List of certain Laws and Ordinances regarding Sericultural Industry in Japan.

Raw Silk Industry Law (Law No. 47 of 1911), as revised from time to time.

Ordinance for enforcement of the above Law. (Ordinance No. 29 of 1929).

Regulations in connection with the above enforcement. (Order No. 3 of 1930.)

Notification in connection with the above enforcement. (Notification No. 67 of 1930.)

Raw Silk Industrial Associations Law. (Law No. 24 of 1931). (Revised by Laws No. 30 of 1932 and No. 10 of 1936.)

Ordinance for the enforcement of Raw Silk Industrial Associations Law. (Ordinance No. 175 of 1931.)

Regulations for enforcement of Raw Silk Industrial Associations Law. (Ordinance No. 17 of 1931 as revised by Ordinance No. 32 of 1936.)

State Treasury's Subsidising Rules for prevention of Silk Worm diseases. (Ordinance No. 20 of 1918.)

Silk Reeling Industry Law. (Law No. 29 of 1932.)

Ordinance for enforcement of the above Law. (Ordinance No. 32 of 1932.)

Rules for Encouragement of Joint establishments for Silk Industry. (Ordinance No. 24 of 1932.)

Law for stabilizing Silk Prices. (Law No. 16 of 1937.)

Ordinance for enforcement of the above. (Ordinance No. 52 of 1937.)

Rules in connection with the above enforcement. (Ordinance No. 5 of 1937.)

Seed Keeping Law. (Law No. 25 of 1920.)

Rules for enforcement of the above Law. (Ordinance No. 21 of 1935.)

Cocoon disposal Controlling Law. (Law No. 9 of 1936.)

Rules for enforcement of the above Law. (Ordinance No. 30 of 1936.)

Imperial Ordinance No. 30, about the Charges for Tests carried out at the Sericultural Experimental Station. (Notification No. 35 of 1920.)

Rules for distribution of Seed Cards. (Notification No. 344 of 1914.)

Imperial Ordinance No. 365, prescribing fees for Inspection of Seed Cards. (1929.)

Rules for granting Subsidy for Improvement and encouragement of Sericultural Industry. (Ordinance No. 17 of 1918.)

Rules regarding Sericultural Controlling Office. (Ordinance No. 31 of 1911.)

Rules regarding Prefectural Sericultural Experimental Stations. (Ordinance No. 22 of 1922.)

Rules regarding Distribution of Mulberry Seedlings. (Notification No. 53 of 1923.)

Rules regarding Prefectural Cocoon Conditioning House. (Ordinance No. 11 of 1931.)

Sericultural Law for Chosen (1919.)

Wild Cocoon Controlling Law for Formosa (1937.)

Law for Financial Accommodation for Stabilizing Raw Silk Market. (Law No. 14 of 1929.)

Extracts from Raw Silk Industrial Associations Law. (Law No. 24. Promulgated on 30th March, 1931. Revised by Law No. 30 of September, 1932 and Law No. 10 of May, 1936.)

CHAPTER I.

Section 1. The Raw Silk Industrial Associations.

Article 1.—The following six Associations will be known as raw silk industrial associations:—

- (1) The Sericultural Industry Association.
- (2) The Silk Seed Industrial Association.
- (3) The "Sangyo Kumiai" Reelers Association.
- (4) The Silk Reeling Industrial Association.
- (5) The Raw Silk Wholesale Dealers Association.
- (6) The Raw Silk Exporters Association.

Article 2.—The object of the raw silk industrial associations is to effect improvement and development of and control over the raw silk industry.

Article 3.—These raw silk industrial associations are legal bodies.

Article 4.—The raw silk industrial associations are not to engage in any kind of profiteering business.

Article 8.—Each of the Associations may authorise its officials to inspect an office or place of business and examine books and other things belonging to a member of its association.

Article 10.—The raw silk industrial associations may collect charges for hire (of implements, etc.), and commissions according to the stipulations of their respective Regulations.

Section 2.—The Sericultural Industry Association.

Article 16.—The Sericultural Industry Association undertakes the following works in order to achieve its objects:—

- (i) Adoption of necessary measures for attaining uniformity in the varieties or breeds of silk worms.
- (ii) Adoption of measures for guiding and encouraging Sericultural Industry.
- (iii) Adoption of necessary measures providing for the testing of cocoons.
- (iv) Effecting improvement in the methods of transactions in cocoons.
- (v) Adoption of necessary measures for the prevention of diseases in silk worms.
- (vi) Adoption of necessary measures for research work in Sericulture.
- (vii) Undertaking mediation or arbitration in cases of disputes in connection with the sericultural industry.
- (viii) Introduction of any other measures necessary for improvement, development and rationalization in the sericultural industry.

Article 18.—The Sericultural Industry Association's members shall be as follows:—

- (1) The Sericulture Conducting Association (Yosan Jikko Kumiai).
- (2) The Cocoon Raisers who are not ordinarily members of the above association, but are appointed to membership by Government orders direct.

Article 20.—The Sericulture Conducting Association shall undertake the following works, in order to achieve its objects:—

- (i) Joint purchase of articles, establishment of joint equipments and the provision of other co-operative measures in connection with the sericultural work of the members.
- (ii) Adoption of necessary measures for the disposal of cocoons raised by the members of the association.
- (iii) Exercise of control over the work of the members engaged in the sericultural industry.
- (iv) Provision of necessary measures for joint help and preparation for disaster that may befall any members engaged in the sericultural industry.
- (v) Provision of expert guidance, investigation and examination of the works, of the members engaged in the sericultural industry.
- (vi) Introduction of any other measures necessary for achieving the purpose of the association than those mentioned above.

Section 3.—The Silk-seed Industrial Association.

Article 42.—The Silk-seed Industrial Association shall undertake the following works in order to achieve its objects:—

- (i) Introduction of necessary measures in order to obtain uniformity in the varieties or breeds of silkworms.
- (ii) Introduction of necessary measures for guidance and encouragement of silk seed production.
- (iii) Provision of equipments necessary for testing silk-seeds.
- (iv) Provision of measures necessary for the prevention of diseases.
- (v) Investigation and examination of silk-seed.
- (vi) Mediation or arbitration of disputes regarding the production of silk-seed.
- (vii) Introduction of any other measures necessary for the improvement, development and control of seed-production.

Section 4.—The “Sangyo Kumiai” Reelers Association.

Article 46.—The “Sangyo Kumiai” Reelers Association shall undertake the following works in order to attain its objects:—

- (i) Introduction of measures necessary for securing uniformity in the quality of cocoons and in the method of their disposal.
- (ii) Provision of necessary measures for effecting uniformity in grade and size of raw silk.
- (iii) Adoption of necessary measures for guidance and encouragement of reeling by “Sangyo Kumiai”.
- (iv) Provision of necessary measures for testing raw silk.
- (v) Investigations and examination of raw silk reeling by “Sangyo Kumiai”.
- (vi) Undertaking mediation or arbitration in matters of dispute in connection with raw silk production by “Sangyo Kumiai”.
- (vii) Adoption of any other measures necessary for the improvement, development and control of raw silk production by “Sangyo Kumiai”.

Article 47.—The Silk Reeling Industrial Association undertakes the following works in order to achieve their objects:—

- (i) Provision of measures necessary for effecting uniformity in grade and size of raw silk.
- (ii) Adoption of necessary measures providing for expert guidance and encouragement in silk reeling industry.

- (iii) Provision of necessary measures for testing raw silk.
- (iv) Adoption of measures necessary for promoting the welfare of those engaged in silk reeling industry.
- (v) Investigation into and research in silk reeling industry.
- (vi) Undertaking mediation or arbitration in matters of dispute in connection with the silk reeling industry.
- (vii) Effecting any other measures necessary for the improvement, development and control of the silk reeling industry.

Section 5.—The Raw Silk Wholesale Dealers Association and the Raw Silk Exporters Association.

Article 52.—The Raw Silk Wholesale Dealers Association and the Raw Silk Exporters Association shall undertake the following works:—

- (1) Adoption of measures necessary for effecting improvement and uniformity in the methods of transactions in raw silk.
- (2) Investigation into and examination of transactions in raw silk.
- (3) Undertaking mediation or arbitration in matters of disputes arising out of raw silk transactions.
- (4) Effecting any other measures necessary for improvement, development and control of raw silk transactions.

CHAPTER II.

Article 57.—The Federations of Raw Silk Industrial Associations are seven in number as below:—

- (1) The Federation of the Prefectural Sericultural Industrial Associations.
- (2) The Federation of the Sericultural Associations of the whole of Japan.
- (3) The Federation of the Silk-seed Industrial Associations of the whole of Japan.
- (4) The Federation of "Sangyo Kumiai" Silk Reelers Associations of the whole of Japan.
- (5) The Federation of Silk Reeling Industrial Associations of the whole of Japan.
- (6) The Federation of the Raw Silk Wholesale Dealers Associations of the whole of Japan.
- (7) The Federation of the Raw Silk Exporters Associations of the whole of Japan.

CHAPTER III.

"NIPPON CHU-wo SANSHI-KAI".

(Japan Central Silk Committee.)

Article 69.—The object of the Japan Central Silk Committee is to effect inter-linking amongst the Federations and the Associations, as well as to effect improvement, development and rationalization in the Sericultural industries.

Article 71.—The Japan Central Silk Committee shall undertake the following works in order to attain its objects:—

- (1) Adoption of measures for linking the Federations of the sericultural industrial associations with Associations and controlling the former.
- (2) Investigation into and examination of sericultural industries.
- (3) Adoption of necessary measures for expansion of raw silk markets.
- (4) Undertaking mediation or arbitration in matters of disputes in connection with sericultural industries.
- (5) Effecting any other measures necessary for improvement, development and control of sericultural industries.

Article 74.—The members of Japan Central Silk Committee shall consist of the Federations enumerated in items numbered 2 to 7 of Article 57 mentioned above.

Extracts from Rules for subsidising the employment of experts (1931).

Rule 1.—In order to encourage the employment of experts by sericultural associations, the Minister of Agriculture and Forestry shall grant subsidy, according to the present Rules, within the limit of annual budget of the Ministry.

Rule 2.—The subsidy shall be given to Prefectural Governments on account of following expenses:—

- (1) Subsidy for expenditure to be incurred through the employment of experts by Sericultural Industrial Associations,
- (2) Subsidy given to the Federation of Sericultural Industrial Associations for the employment of experts.
- (3) The amount of subsidy to be granted by the Minister shall be not more than one half of the above-mentioned expenditure of Prefectural Governments and no more than one third of the salaries paid to the experts.

I. State Treasury Subsidising Rules for Prevention of Silkworm Disease (Ordinance No. 20 of June 17th, 1918).

Compensatory subsidies granted by the Central Government to the Prefectural Governments in the following cases:—

1. In case the Re-inspection fee of the ordinary silk eggs is given up or the fee is decreased by the Prefectural Government the amounts thus involved are compensated.

2. Subsidy may also be granted to the extent of the balance derived after deducting the estimated amount of Silk Eggs Inspection fees from the estimated expenditure for the prevention of Silk diseases. (Inspection fee is charged at Yen 0.04 per egg-card.)

II. Extract from Ordinance No. 24 of September 24th, 1932, setting forth Rules for Encouragement of Joint Establishments for Silk Industry.

Subsidy is granted within the limit of one half of the expenditure required for new and additional equipments, improvement in or purchase of buildings, workshops or machines and tools required for re-reelings, bundling, packing, testing or selling of raw silk reeled by power-machinery which belongs to a joint legal body or an association organized by silk producers.

III. Rules for the grant of subsidy for encouraging improvement in Cocoon and Silk Industry. (*Ordinance No. 17 of the Ministry of Agriculture and Commerce, dated the 17th May, 1918.*)

1. The Ministry of Agriculture and Commerce may grant subsidy, within the limit of its budget, to any Prefectural Government every year, for the improvement of mulberry farm and production and distribution of silkworm eggs.

2. For encouraging improvement of mulberry plantation, subsidy is to be granted, for any of the following specific purposes:—

- (1) For engaging experts appointed specially for the improvement of mulberry plantation.
- (2) For raising young plants or grafts and distributing them to interested units.
- (3) For making use of neglected mulberry plantations.
- (4) For establishment of model mulberry farms.
- (5) For conducting examination and investigations of mulberry in accordance with the stipulations laid down by the Ministry of Agriculture and Commerce.
- (6) For holding of mulberry exhibitions, lecture meetings, devising measures for the prevention of harm to plantation and conducting basic necessary measure for improving mulberry plantation.
- (7) Subsidies shall be granted to Agricultural Committees of towns and villages and other organizations, only on condition that such an organization shall undertake any or some of the measures indicated above.

3. The subsidy for production and distribution of the egg-paper shall be given for any of the following purposes:—

- (1) To establish Cocoon and Silk Experimental Station and produce egg-cards for distribution.
- (2) To purchase eggs and distribute them.
- (3) Subsidy shall be given to an organization covering a city or a county or both inclusive or a larger area which undertakes a part or all of the above mentioned activities.

IV. Rules for the Grant of Subsidies for Improvement of Cocoon Industry. (*Relevant Extracts from Ordinance No. 19 of the Ministry of Agriculture and Forestry, issued on the 25th July, 1935.*)

1. The Minister of Agriculture and Forestry shall, for the purpose of improving the method of disposition of cocoons by the cocoon raisers, grant subsidy according to these Rules, within the limit of his budget every year, to a "Sangyo Kumiai" (or farmers' co-operative organization) for making necessary arrangement for the production of Silk and for encouraging transactions in dried cocoons.

2. The subsidy shall be granted at a rate not more than 40 per cent. of the expenses required for putting up Joint Cocoon Warehouses, Joint Heating Ovens for drying cocoons, or for undertaking new construction, reconstruction works or adding, improving and purchasing Reeling Mills, factories, machines and instruments.

3. In the allotment of a subsidy, an Industrial Association formed of Cocoon raisers, or a Federation of Industrial Associations will be given preference.

APPENDIX III.

Production of Egg-cards and Cocoons in 1937, by Prefectures.

Prefectures—	Egg-card Production 1937 (in kilo- grams).	Cocoon Pro- duction 1937 (in kwan of 8·267 pounds).
Hokkaido	18	6,871
Aomori	98	79,120
Iwate	1,266	949,177
Miyagi	2,227	1,506,864
Akita	357	208,108
Yamagata	3,609	2,153,729
Fukushima	5,884	3,868,752
Ibaragi	6,254	3,883,817
Tochigi	1,691	1,013,772
Gunma	13,742	7,245,126
Saitama	10,954	5,598,898
Chiba	3,749	2,118,748
Tokyo	2,621	1,410,131
Kanagawa	2,792	1,586,729
Niigata	2,489	1,454,782
Toyama	360	202,265
Ishikawa	714	451,835
Fukui	426	294,518
Yamanashi	8,396	4,369,326
Nagano	16,509	8,411,346
Gifu	5,305	3,344,359
Shizuoka	2,961	1,858,002
Aichi	8,610	4,967,281
Mie	4,682	3,240,765
Shiga	699	470,257
Kyoto	1,666	1,319,398
Osaka	31	23,834
Hyogo	1,759	1,420,441
Nara	1,080	698,003
Wakayama	1,003	713,048
Tottori	2,334	1,543,320
Shimano	2,200	1,491,259
Okayama	1,941	1,347,319
Hiroshima	1,231	809,577
Yamaguchi	518	315,342
Tokushima	3,293	1,845,744
Kagawa	593	416,770
Ehime	3,110	2,099,970
Kochi	1,865	1,325,388
Fukuoka	1,687	1,101,349
Saga	893	683,525
Nagasaki	1,233	783,098
Kumamoto	4,235	2,899,351
Ohita	2,394	1,622,294
Miyazaki	1,599	1,240,212
Kagoshima	2,091	1,494,262
Okinawa	231	993,561
Total	143,200	85,970,943

*Statement showing output of Cocoons, etc.**(a) Seasonal Crops.**(i) Spring Crop.*

Year.	Egg-cards hatched (1,000 grams.)	Output of cocoons (1,000 kgs.)			Total.	Total value. (Y. 1,000).
		Normal.	Dupion.	Waste.		
1931 . .	80,491	180,587	10,123	6,793	197,502	154,833
1932 . .	77,898	158,817	8,220	6,928	173,966	111,898
1933 . .	81,198	172,770	7,680	7,121	187,571	298,404
1934 . .	77,463	167,344	7,339	6,784	181,467	117,340
1935 . .	69,389	152,235	6,907	6,513	165,655	161,952
1936 . .	65,053	141,314	7,153	6,755	155,222	199,968

(ii) Summer and autumn crop.

Year.	Egg-cards hatched (1,000 grams.)	Output of cocoons (1,000 kgs.)			Total.	Total value. (Y. 1,000).
		Normal.	Dupion.	Waste.		
1931 . .	89,516	141,769	16,439	8,316	166,520	120,724
1932 . .	88,913	138,455	15,099	8,289	161,843	184,893
1933 . .	100,002	166,560	15,923	9,308	191,791	201,725
1934 . .	83,366	125,605	11,078	8,094	145,277	86,509
1935 . .	81,788	122,819	10,819	8,378	142,091	188,908
1936 . .	80,585	136,198	19,790	8,676	155,664	186,665

(b) *Amount of Cocoon crops.*

Every 5 years.	Average amount of cocoon crops (Kwamme).	Index number.
1885-89	11,109,778	100.0
1890-94	15,435,906	138.9
1895-99	21,502,792	193.6
1900-04	26,481,754	238.4
1905-09	32,622,124	296.3
1910-14	43,184,692	388.7
1915-19	61,560,686	554.1
1920-24	66,377,775	597.5
1925-29	91,666,028	825.1
1930-34	96,277,934	866.6
1935	82,066,053	738.7
1936	82,902,996	746.2

N..l.—Kwamme (or Kwan)=8.26,738 lbs.

(c) *Yield of cocoons and No. of egg-cards hatched, etc.*

Year.	Yield of cocoons per one egg-card deposited by 28 moths (Momme.)	Number of egg-cards hatched per rearing family (cards).	Yield of cocoons per rearing family (Momme).
1905	1,852	6.0	11,933
1910	2,267	6.2	16,569
1915	2,440	11.3	27,771
1920	3,100	10.8	33,423
1925	4,733	9.1	43,516
1929	5,330	8.6	46,058
1930	5,746	8.4	48,043
1931	5,710	80.2*	45,791
1932	5,368	80.8*	43,373
1933	5,583	86.6*	48,353
1934	5,418	80.6*	43,668
1935	5,428	79.8*	43,315
1936	5,692	78.4*	44,628

* Grams.

(d) No. of Sericultural Families employed by Season.

Year.	Spring.	Summer and Autumn.
1925	1,718,211	1,816,423
1926	1,804,835	1,914,943
1927	1,847,895	1,949,935
1928	1,929,465	2,029,333
1929	2,000,137	2,076,247
1930	2,055,036	2,019,397
1931	1,966,427	1,949,196
1932	1,901,319	1,922,253
1933	1,918,275	1,981,512
1934	1,866,552	1,810,787
1935	1,749,988	1,769,777
1936	1,694,055	1,754,130

OUTPUT OF COCOONS

(In 1,000 kwan).

	Total Output.	SEASON.		KIND.	
		Spring.	Summer and Autumn.	White.	Yellow.
1890-94 . . .	15,436	11,360	4,076	Unavailable	Unavailable
1900-04 . . .	26,482	18,211	8,271	"	"
1910-14 . . .	43,185	25,510	17,674	"	"
1925-29 . . .	91,666	46,694	44,972	71,252	20,415
1925	84,800	42,927	41,872	69,615	15,185
1929	102,093	50,595	51,499	76,361	25,732
1930	106,464	56,103	50,360	76,729	29,734
1931	97,072	52,667	44,405	68,440	28,633
1932	89,550	46,391	43,159	66,073	23,478
1933	101,164	50,019	51,145	75,794	25,369
1934	87,140	87,390	38,749	64,616	22,523
1935	82,066	44,176	37,891	68,967	13,099

STATEMENT SHOWING OUTPUT OF COCOONS IN JAPAN PROPER
COMPARED WITH OTHER COUNTRIES.

(In 1,000 Kgs.)

—	1930.	1931.	1932.	1933.	1934.
Japan proper .	399,240	364,020	335,813	379,375	326,775
Bulgaria .	2,265	1,110	1,304	1,368	1,385
Spain .	710	526	544	459	367
France .	1,827	997	987	942	975
Greece .	1,884	1,690	1,867	2,189	2,676
Hungary .	772	494	613	506	424
Italy .	52,743	34,459	8,246	34,387	23,857
Rumania .	500	243	185	94	214
Yugoslavia .	1,272	778	466	657	377
Russia .	18,565	20,000	10,200	14,400	15,200
Brazil .	256	372	457	550	885
Cyprus .	237	192	163	150	136
Indo-China .	1,471	*16,345	*14,125	†15,458	†16,954
Syria and Lebanon.	3,650	2,760	1,730	1,845	1,200
Turkey .	1,600	1,380	1,225	1,892	1,947

NOTE.—*EXCLUDING TONKIN.

†Cochin-China only.

Statement showing Mulberry Plantations.

Year ending June.	No. of farming families.	Area of fields.		No. of mulberry saplings.	Amount of mulberry saplings (Yen).
		Hectares.	Cho.		
1930 .	152,015	708,273.62	714,175.9	350,234,622	1,829,845
1931 .	132,613	677,131.14	682,902.8	244,756,606	1,446,196
1932 .	104,370	647,121.49	652,514.2	227,798,871	3,164,835
1933 .	101,549	634,796.01	640,178.0	255,609,921	2,902,929
1934 .	107,839	616,770.10	623,000.1	238,178,829	1,624,852
1935 .	97,579	576,513.23	582,336.6	222,877,157	3,001,198
1936 .	91,487	561,379.55	566,057.8	386,106,850	5,807,647

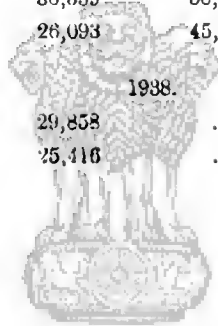
Statement showing production of Raw Silk.

	Machino-reeling.		Hand reeling.		Duplicons.		Total.	
	Volume (Kwan)	Value (Yen)	Volume (Kwan)	Value (Yen)	Volume (Kwan)	Value (Yen)	Volume (Kwan)	Value (Yen)
1930	10,179,136	503,012,776	460,748	15,803,818	725,142	17,847,264	11,365,026	536,663,848
1931	10,524,447	400,496,651	411,205	12,209,175	747,162	14,985,162	11,682,814	427,690,988
1932	10,069,029	427,210,527	337,232	11,877,674	683,550	15,569,637	11,090,711	454,457,838
1933	10,295,942	471,959,781	310,144	10,864,390	636,730	14,916,637	11,242,816	497,740,808
1934	11,180,338	377,872,777	355,374	9,447,637	529,182	11,048,753	12,064,894	398,369,167
1935	10,890,387	477,383,234	296,648	10,951,726	442,242	11,432,231	11,629,277	499,767,191

Statement showing Imports of Raw Silk by United States, 1936-1938.

(Quantity in Bales.)

Months.	1937.	1936.	Decrease or Increase	
			(—)	(+)
January . . .	50,328	40,565	+ 9,763	
February . . .	37,348	40,222	— 2,874	
March . . .	32,257	25,009	+ 7,248	
April . . .	39,712	26,973	+ 12,739	
May . . .	35,698	26,055	+ 9,643	
June . . .	40,037	26,780	+ 13,257	
July . . .	27,337	31,388	— 4,051	
August . . .	36,246	41,702	— 5,456	
September . . .	36,146	45,437	— 9,291	
October . . .	32,879	43,840	— 10,961	
November . . .	36,339	50,814	— 14,475	
December . . .	28,093	45,318	— 19,225	
1938.				
January . . .	29,858	...	— 20,470	
February . . .	25,416	...	— 11,932	



सत्यमेव जयते

APPENDIX I

Statistics showing the Budgetary Grants made by the Japanese Government for the promotion of Sericulture Industry, amounts of Subsidies and Monetary Aids given to various quarters engaged in the Industry, etc., during the years 1927 to 1936.

Heads of Expenditure.	1927	1928	1929	1930	1931
	Yen.	Yen.	Yen.	Yen.	Yen.
<i>1. The Sericultural Bureau (details as given below)</i>					
Head Office expenses	1,319,615	1,163,766	975,787	1,113,160	853,781
Aid towards the cost for Prevention of Disease	31,366	31,366	36,868	55,894	49,942
Subsidies for Improvement of Sericultural Industry	173,250	173,250	151,298	135,182	98,899
Expenditure for Promotion of Condition of Agricultural villages	136,950	115,450	222,709	184,590	154,002
Expenditure for the investigation of cultivation of raw silk market	627,876	746,176	379,964	568,891	416,834
Expenses for investigation of actual condition of Sericulture . . . . .	..	..	..	..	..
Aid to the Federation of Cocoon Producers Associations of Japan . . . . .	..	..	..	..	..
Subsidies for employment of experts for various Sericultural Associations . . . . .	..	..	..	..	..
Expenses for measures taken for prevention of various kinds of damages to the Industry.	..	..	..	..	..
Subsidy to the Industry in Okinawa Prefecture	109,647	79,834	78,103	67,498	54,354
Expenditure for promoting works in Okinawa Prefecture . . . . .	..	..	..	..	..
Subsidy given to the Industry in Oshima County of Kagoshima Prefecture.	..	..	48,291	24,188	18,743

Subsidy towards the promotion of the Industry in the above County	..	..	..	..	..
Bounty for prevention of harm done by snow, frost, etc.	..	..	..	..	..
Agricultural civil engineering expenses	..	..	..	..	..
Subsidy towards the provision of measures for joint keeping of Summer and Autumnal cocoons.	..	..	..	..	..
Subsidy towards the joint storing equipments (godowns, etc.) for cocoons	..	..	..	..	..
Subsidy towards the provision of urgent equipments for breeding silk-worms.	..	..	..	..	..
Expenditure for "Cocoon and Silk Committee"	17,690	17,690	17,613	..	..
Expenditure for the Examining Committee for financial accommodation to stabilize the prices of raw silk.	..	..	..	13,203	10,825
Expenditure for the Examining Committee for the control of sales of raw silk for exportation.	..	..	..	..	..
Expenses for planning the promotion of the Industry	..	..	..	..	..
Expenses for investigation of actual condition of Sericulture.	..	..	41,041	39,964	36,884
Bounty for tests to be made in connection with conditioning of raw silk.	..	..	..	23,750	..
Expenditure in connection with construction work after the Great Earthquake.	1,000	..	..	..	..
Subsidy given for the recovery of the Industry in the districts affected by Earthquake in Shizuoka and Kanagawa prefectures.	..	..	..	..	23,250
Recovery expenditure for San-riku Districts which suffered from the Earthquake.	..	..	..	..	..
Subsidy given to Tango Districts for recovery from the Earthquake damages.	186,100	..	..	..	..
Subsidy given to Kumamoto and Nagasaki prefectures for recovery from Earthquake damages.	35,736	..	..	..	..

APPENDIX I—contd

Statistics showing the Budgetary Grants made by the Japanese Government for the promotion of Sericulture Industry, amounts of Subsidies and Monetary Aids given to various quarters engaged in the Industry, etc., during the years 1927 to 1936—contd.

Heads of Expenditure.	1927	1928	1929	1930	1931
	Yen.	Yen.	Yen.	Yen.	Yen.
<i>II. Sericultural Experimental Stations (details are given below)</i>					
Expenditure for Experimental stations and Investigation offices	440,649	464,327	460,978	447,923	442,511
Bounty for improvement of Sericulture	303,563	397,478	394,798	382,412	352,796
Expenditure for promotion of the condition of Agricultural villages	..	..	..	..	..
Expenses for investigation of relief measures of poor crops of Summer and Autumn cocoons.	9,364	35,557	35,231	34,875	31,554
Expenses for the investigation of new uses of cocoons.	..	..	..	..	..
Expenses for the investigation of conditioning methods of cocoons	37,722	31,262	30,949	30,636	..
<i>III. Yokohama raw silk Conditioning House</i>	495,674	539,769	558,983	553,794	593,621
<i>IV. Kobe raw silk Conditioning House</i>	..	..	..	..	254,198
<i>V. Foreign raw silk Markets Investigation Office in New York (U. S. A.)</i>	..	..	..	..	..
<i>VI. Yokohama Registration Office for "Raw Silk for Export"</i>	..	..	..	..	..
<i>VII. Kobe Registration Office for "Raw Silk for Export"</i>	..	..	..	..	..

APPENDIX I—*contd.*

Statistics showing the Budgetary Grants made by the Japanese Government for the promotion of Sericulture Industry, amounts of Subsidies and Monetary Aids given to various quarters engaged in the Industry, etc., during the years 1927 to 1936—(contd.)

Heads of expenditure.	1932	1933	1934	1935	1936
	Yen.	Yen.	Yen.	Yen.	Yen.
<i>I. The Sericultural Bureau (details as given below)</i>					
Head Office expenses	5,956,703	4,783,190	10,710,233	9,656,064	10,324,153
Aid towards the cost for Prevention of Disease	57,673	41,723	41,723	41,723	41,723
Subsidies for Improvement of Sericultural Industry	83,283	83,283	83,283	83,283	83,283
Expenditure for Promotion of Condition of Agricultural villages	342,274	326,934	375,550	3,907,790	4,366,136
Expenditure for the investigation of cultivation of raw silk market	461,875	454,297	475,305	202,074	476,281
Expenses for investigation of actual condition of Sericulture . . . . .	..	..	..	..	128,854
Aid to the Federation of Cocoon Producers Associations of Japan . . . . .	..	34,155	34,155	20,000	..
Subsidies for employment of experts for various Sericultural Associations . . . . .	..	40,000	..	..	..
Expenses for measures taken for preventions of various kinds of damages to the Industry . . . . .	..	..	200,000	200,000	200,000
Subsidy to the Industry in Okinawa Prefecture . . . . .	..	..	4,528,700	5,121,300	4,347,982
Expenditure for promoting works in Okinawa Prefecture	54,354	54,354	..	..	..
Subsidy given to the Industry in Oshima County of Kagoshima Prefecture . . . . .	..	..	33,624	31,346	31,346
	18,743	18,721	18,721	..	..

APPENDIX I—contd.

Statistics showing the Budgetary Grants made by the Japanese Government for the promotion of Sericulture Industry, amounts of Subsidies and Monetary Aids given to various quarters engaged in the Industry, etc., during the years 1927 to 1936.—contd.

Heads of expenditure.	1932	1933	1934	1935	1936
	Yen.	Yen.	Yen.	Yen.	Yen.
Subsidy towards the promotion of the Industry in the above County .	..	..	..	32,228	32,228
Bounty for prevention of harm done by snow, frost, etc. .	..	..	..	16,320	16,320
Agricultural Civil Engineering expenses	3,761,320	2,518,618	761,172	..	..
Subsidy towards the provision of measures for joint keeping of Summer and Autumnal cocoons.	1,136,200	..	..	..	..
Subsidy towards the joint storing equipments (godowns, etc.) for cocoons	..	1,136,200	2,650,000	..	..
Subsidy towards the provision of urgent equipments for breeding silk-worms.	..	..	1,500,000	..	..
Expenditure for "Cocoon and Silk Committee" . . . . .	..	..	..	..	..
Expenditure for the Examining Committee for financial accommodation to stabilize the prices of raw silk.	8,419	..	..	..	..
Expenditure for the Examining Committee for the Control of sales of raw silk for exportation.	..	10,000	8,000	..	..
Expenses for planning the promotion of the Industry	32,552	..	..	..	..
Expenses for investigation of actual condition of Sericulture . . . .	..	..	..	..	..
Bounty for tests to be made in connection with conditioning of raw silk .	..	..	..	..	..

Expenditure in connection with construction work after the Great Earthquake.	..	..	..	..	..
Subsidy given for the recovery of the Industry in the districts affected by Earthquake in Shidzuka and Kanagawa prefectures.	..	..	..	..	..
Recovery expenditure for San-riku Districts which suffered from the Earthquake.	..	57,175	..	..	..
Subsidy given to Tango Districts for recovery from the Earthquake damages.	..	..	..	..	..
Subsidy given to Kumamoto and Nagasaki prefectures for recovery from Earthquake damages.	..	..	..	..	..
II. Sericultural Experimental Stations (details are given below)	505,805	533,764	1,069,087	1,077,443	1,385,485
Expenditure for Experimental stations and Investigation offices	327,034	354,993	875,020	375,020	472,086
Bounty for improvement of Sericulture	..	..	..	123,760	123,420
Expenditure for promotion of the condition of Agricultural villages	150,319	150,319	625,351	372,874	589,190
Expenses for investigation of relief measures of poor crops of Summer and Autumn cocoons.	28,452	28,452	28,452	28,452	23,452
Expenses for the investigation of new uses of cocoons	..	..	40,264	177,337	177,337
Expense for the investigation of conditioning methods of cocoons	..	..	..	..	..
III. Yokohama Raw Silk Conditioning House	1,062,711	1,077,064	1,077,064	1,077,064	1,077,064
IV. Kobe Raw Silk Conditioning House	602,743	609,007	609,007	609,007	609,007
V. Foreign Raw Silk Markets Investigation Office in new York U. S. A..	115,000	147,625	143,120	135,974	135,348
VI. Yokohama Registration Office for "Raw Silk for Export"	..	..	4,338	4,338	4,338
VII. Kobe Registration Office for "Raw Silk for Export"	..	..	3,262	3,262	3,262

(4) *Letter No. F. 43 (7)/38, dated the 11th November, 1938, from the Indian Trade Commissioner in Japan, Osaka, to the Secretary, Tariff Board.*

Subject: NOTES ON SERICULTURE, SILK TEXTILE AND STAPLE FIBRE INDUSTRIES IN JAPAN.

With reference to the Tariff Board's letter No. 712, dated the 19th July, 1938, on the subject cited above, I have the honour to say that a Note on Sericulture Industry in Japan was forwarded to the Secretary, Commerce Department, on the 12th July, 1938, for transmission to you. A second note on Japanese silk textile and staple fibre industries is now being similarly forwarded to the Commerce Department with the request that a copy may be passed on to the Board.

2. With regard to important publications available in Japan on the above-mentioned Japanese industries, I would state that there is no publication available either in Japanese or in English which gives information even in a complete form. Information had therefore to be collected from scattered sources—both from published Journals, Trade Guides, etc., and from experts. A list of publications is however enclosed.

List of Publications on Japanese silk textile and staple fibre industries.

1. Cocoon Silk by C. H. C. Causdale. (Sir Isaac Pitman & Sons, Ltd., London.)
2. Silk—Its production and manufacture by Luther Hooper. (Pitmans.)
3. The Raw Silk Industry of Japan by C. J. Huber. (Published by the Silk Association of America.)
4. Reports of the Imperial Sericultural Experiment Stations.
5. Japan Trade Guide, 1938. (Published by Domei.)
6. "Staple Fibre" by Mr. Buhachi Kishi, Commercial and Industrial Expert, Price 1.00 Yen. (Published by Takeyama Shoin, No. 10, Ogawa-cho, 2, Chome, Kandaku, Tokyo.)
7. "Staple Fibre" by T. Koiwa, Chief of Silk Spinning Factory of Silk Experimental Station of Ministry of Commerce and Industry, Price 2.90 Yens. (Published by Kogyo Toshu Kabushiki Kaisha, No. 4, 3 Chome, Hatagocho, Kandaku, Tokyo.)
8. "Rayon and Staple Fibre." (Published by Spinning and Weaving Journal) ("Boshoku Zasshisha") No. 45, 1-chome, Kyomachibori, Nishiku, Osaka, Price 4.50 Yens.)
9. "Saushi Hoten" (Treasure book of Sericulture). Price 2.50 Yens. Published by Seibunsha, 14/15, Kiridoshi-sakamachi, Yushima, Hongo-ku, Tokyo.
10. "Sanshigyo Yoran" (Statistical book about Sericulture). Published by Sericultural Bureau of Department of Agriculture and Forestry, Tokyo.
11. Artificial silk by Dr. O. Faust. (Sir Isaac Pitman and Sons, Ltd., London.)
12. Japanese Trade and Industry by Mitsubishi Economic Research Bureau. (Published by MacMillans and Co., London.)

(5) *Endorsement No. 341-T. (18)/38, dated the 12th December, 1938, from the Government of India, Department of Commerce, New Delhi.*

The under-mentioned paper is forwarded to the Secretary, Tariff Board, 1, Council House Street, Calcutta, in continuation of the endorsement from this Department No. 311-T. (13)/38, dated the 13th August, 1938.

Note on Silk Textile and Staple Fibre Industries in Japan by the Indian Government Trade Commissioner in Japan.

A BRIEF NOTE ON SILK TEXTILE AND STAPLE FIBRE INDUSTRIES IN JAPAN.

Silk Textile.

Although it is true that the major portion of raw silk produced in Japan finds its way to the spinning, weaving and knitting factories of the United States of America, quite a good quantity is left behind for the small and large local factories for being turned into various grades and types of textiles, hosiery, etc., which are both exported and consumed within the country. Not an inconsiderable amount is also used with rayon, cotton and wool for producing the respective mixed textiles. It is interesting to observe that while the production of raw silk from the stage of mulberry plantation to reeling—enjoys intensive Government protection and encouragement, the same cannot be said in respect of the production of silk textiles. Unhampered by Government direction, there appears to have occurred a remarkable development of silk textile industry in which opportunities to which silk can be put to new uses have been fully exploited. The interests of the consumers of silk textiles and hosiery have however been safeguarded by the Government through legislation. An Act for the Designation and Identification of Silk Fabrics and an Ordinance enjoining that all textiles made of fibrous materials other than natural silk are debarred from bearing any labels or signs indicating or implying that they are manufactured of pure silk, have been recently enforced. Silk-mixed fabrics which are liable to be taken as pure silk are also required to indicate clearly the kinds of fibrous materials used in them.

2. According to the weaving processes, silk textiles in Japan are generally classified into two groups, viz., broad weaves and narrow cloth. There is also a variety of manufactures which come under the category of Special Products. The following figures furnish a picture of Japan's production of these three standard groups in a normal year:—

Broad weaves.

	Quantum (in matters).	Value (in Yen).
Crepe de Chino and Georgetto	37,843,137	30,525,508
Habutae and raw satin	37,784,800	17,184,449
Fuji silk	47,496,004	22,739,044
Pongee	12,806,613	4,514,342
Satin	14,625,626	12,054,890
Cloth for umbrellas and parasols	2,741,408	2,295,570
Velvet	38,182	50,041
Others	...	13,750,163
Total	...	103,114,007

Narrow cloth: (In "tan".)

Oneshi	1,117,687	12,535,202
Crepe de Chine	11,469,583	96,772,414
Habutae	2,176,228	12,781,483
Ro and Sha (silk gauge)	879,104	6,181,884
Meisen and Fushiori	8,139,678	35,482,717
Ito-ori	620,358	4,837,769
Cloth for Japanese trousers	443,951	3,600,677
Plain silk	2,454,085	7,201,456
Others	...	7,149,867
Total	...	186,513,499

Special products: (In pieces.)

	Quantum (in meters).	Value (in Yen).
Cloth for Men's sashes	62,561	370,102
Cloth for Women's Broad sashes (Obi)	49,787	1,662,859
Cloth for Women's narrow sashes	477,353	5,049,643
Ribbons and Tape (in meters) .	354,488	53,877
Others . . . . .	...	4,491,343
Total .	...	11,617,824
Grand total .	...	301,275,330

The following statistics indicate the trend of silk textile production in recent years:—

Years.	Value in Yen.
1932	313,872,492
1933	322,780,065
1934	341,101,249
1935	349,395,708
1936	301,009,330

Exports of silk textiles to India during the three years 1935, 1936 and 1937 and during January-September, 1938, as compared with total exports are shown below:—

	1935.	1936.	1937.	1938. (January to September.)
Total quantity (million sq. yards)	121	121	122	65
Exports to India (million sq. yards) .	29	24	26	12
Total value (million yen)	77	68	72	36
Total value of exports to India (million yen)	18	13	14	5

The following statistics show the various destinations of Japanese silk pigments exports.

Articles and Countries.	Whole year.					
	1935.		1936.		1937.	
	Quantities (in sq. yds.).	Value (in yen).	Quantities (in sq. yds.).	Value (in yen).	Quantities (in sq. yds.).	Value (in yen).
<i>Silk tissues—Total</i>	130,976,680	77,444,346	120,968,275	68,026,708	122,362,377	72,286,212
Manchukuo	663,268	823,640	654,669	681,431	321,963	393,211
Kwantung Province	3,729,550	3,326,839	3,106,695	3,474,251	1,853,335	2,839,225
China	70,985	56,861	54,755	33,330	51,098	67,972
Hongkong	1,367,105	723,872	1,581,273	831,077	1,305,230	701,076
British India	29,177,635	18,074,189	24,412,517	13,203,159	25,706,573	13,838,214
The Straits Settlement	4,828,823	3,105,294	6,953,938	3,812,871	7,104,909	4,597,238
Dutch India	3,053,463	1,362,175	2,362,553	1,088,793	2,036,713	1,147,793
French Indo-China	826,318	741,016	759,883	567,286	1,486,422	920,776
Philippine Islands	327,245	163,539	436,851	214,027	604,642	239,243
Great Britain	18,157,912	12,082,684	13,156,041	8,306,391	13,490,654	9,517,582
France	3,698,395	1,665,978	2,735,518	1,443,170	2,612,301	1,673,097

The following statistics show the various destinations of Japanese silk piecegoods exports.

Articles and Countries.	Whole year.					
	1935.		1936.		1937.	
	Quantities (in sq. yds.).	Value (in yen).	Quantities (in sq. yds.)	Value (in yen).	Quantities (in sq. yds.).	Value (in yen).
Germany	1,617,374	867,777	1,710,634	851,106	2,614,195	1,463,917
Italy	630,182	500,166	486,581	369,004	806,670	646,288
Belgium	369,041	263,004	283,548	231,812	519,676	349,336
Holland	2,320,698	1,447,428	902,841	479,869	630,595	390,175
United States of America	17,070,704	6,777,830	19,339,373	7,544,311	27,444,289	11,531,289
Canada	373,962	226,955	414,764	216,719	320,254	221,879
Argentina	1,428,794	1,310,442	1,233,860	1,141,652	2,470,781	1,381,545
Uruguay	1,074,146	589,668	442,346	305,204	99,439	85,529
Egypt	5,249,885	2,558,628	5,074,471	2,333,439	5,774,335	3,157,701
Federation of South Africa	6,443,324	4,008,240	6,367,829	4,005,458	4,058,133	3,539,692
Australia	10,292,303	6,690,810	5,929,577	4,076,295	3,228,022	2,663,749
New Zealand	1,242,565	754,896	1,042,683	650,674	3,455,424	410,161
Other	16,964,913	9,342,637	22,725,112	12,345,379	16,316,721	10,918,524

3. Amongst the new lines of trade to which silk has been put in Japan the following may be mentioned:—

Silk textiles for winter suitings, overcoats and raincoats.
 Silk artificial leather.
 Silk rugs and blankets.
 Silk 'Panama' hats.
 Silk towels.
 Silk tissues for airplane wings and parachutes.
 Silk alpaca.
 Silk Typewriter ribbons.
 Silk cloth for motor car tyres.
 Silk guts for tennis rackets.
 Silk tissues for insulators.
 Silk textiles for tents.
 Silk sea-clearing nets and nets for catching fish and birds.
 Silk ropes.

The great demand for and an intensive campaign to conserve all kinds of metals have lead certain people in Japan to experiment with silk as a substitute even for metal in manufacturing machineries and their parts. In fact, one of the enterprising firms, Messrs. Katakura and Company have placed on the market noiseless machinery gears and other metal substitutes made of pure silk.

Staple fibre.

Staple fibre is an offshoot of the rayon industry. The manufacture of rayon or artificial silk in Japan started as early as 1910 (both with viscose process and cuper-ammonia process—the latter going out of fashion since 1923), while staple fibre was first manufactured ten years later from milk casein by an Osaka merchant K. Negoro at Yasuno Woollen Spinning Mill in Aichi Prefecture. The secret of the new product, although manufactured since about 1920, was not disclosed till 1932, the manufacturers obviously being influenced by reasons of business monopoly. Both staple fibre and artificial silk fibre are similar for spinning and weaving purposes. An artificial silk fibre consists of a lengthy line of gathered fibres, while a staple fibre is made up of a single fibre cut in a short length. In connection with their inquiry into the Indian Sericultural Industry, the Indian Tariff Board have issued a questionnaire to all Local Governments and Indian States (reproduced in the Indian Textile Journal for June, 1938), in which the following two queries appear:—

“(3) Is yarn made from staple fibre used by weavers in the manufacture of silk goods? If so, what proportion of this yarn, is as a rule utilized? From what source it is obtained, and what is its price?”

“(4) Is there any tendency for staple fibre yarn to oust silk? What is the market estimation of staple fibre goods?”

With reference to the above, it may be observed that the difference between artificial silk or rayon and staple fibre is that while the former is manufactured in imitation of raw silk, the latter is produced in imitation of natural wool and raw cotton. Staple fibre is less lustrous, softer and warmer than rayon. Consequently it is rayon or artificial silk rather than staple fibre that can be substituted for and compete with silk. This primary difference in the aim of employment of these two fibres naturally

govern the principle underlying the fixation of prices of respective textiles manufactured from them. Besides, the simpler chemical and mechanical processes required for manufacturing staple fibre render its cost of production cheaper than rayon. In future it is anticipated that staple fibre will offer severe competition to raw cotton and raw wool, but not to raw silk. Accordingly, technical investigations in Japan concerning staple fibre are at present being concentrated on the following points:—

- (a) To reduce the cost of production as much as possible.
- (b) To evolve a kind of fibre that would make it non-conductive in temperature.
- (c) To make the fibre more resisting to water.

The fact that staple fibre is considered as a suitable substitute for wool and cotton has induced the Japanese Government to encourage a large-scale production of this fibre by drastically restricting the use of cotton for home consumption and enjoining that all woollen goods must contain at least 30 per cent. of staple fibre.

2. There have been in practice in Japan five recognized processes of manufacturing staple fibre, viz.:—

1. Viscose,
2. Cupro-ammonium,
3. Nitrocellulose,
4. Cellulose acetate, and
5. Casein.



The Viscoso Process is most popular at present in Japan, while production on a considerable scale of casein staple fibre derived from artificial milk obtained from soya-beans is being launched in Manchuria. Not only for staple fibre and rayon, but also for the manufacture of paper, Japan is dependent to a large extent on foreign supply of pulp which has been running short and difficult to import on account of the Government's restriction policy. The forest resources in the Japanese Empire being limited, the Japanese fibre chemists have for sometime been making researches with various kinds of materials to produce pulp for these articles and as a result, they have been successful in several directions. Pulps from rice hulls and straws, reeds, bagasse, mulberry bark, soya-bean and sea-weeds, have already been successfully manufactured and tests are being carried out from the point of view of economic cost of production. Sea-weeds have largely been used in Japan for the production of iodine and potassium. Further researches have yielded two more useful commodities from sea-weeds, viz., alginic acid (useful in the manufacture of thickening material of all kinds required in the making of staple fibre textiles and as clarifying or waterproofing substance) and mannitol (used in the manufacture of synthetic resin apart from being put to many medicinal uses). The manufacture of alginic acid for staple fibre both from soya-beans and sea-weeds has been taken up by a powerful Japanese combine comprising of the Manchurian Soya-Bean Engineering Company and the Nippon Suisen Kagaku Kaisha. They aim at producing four tons of casein wool per day. One of the largest cotton spinning and weaving mills in Japan who also control several woollen and silk weaving mills, have at present a plant which produces 20 tons of staple fibre per day from certain new raw materials. They hope to increase this amount to 50 tons a day with the completion of a water-work system which is under construction. This company has also under construction another plant in a different locality of which the daily production is estimated to be 20 tons of staple fibre.

3. The most important materials required for the manufacture of staple fibre are pulp and caustic soda. To what extent Japan is dependent on

supplies from abroad of these two commodities may be gauged from the following figures:—

Pulp for Staple Fibre and Rayon (in tons).

Years.	Home production.	Importation.	Total demand.
1932 . . .	3,600	60,000	63,000
1933 . . .	5,900	85,000	90,900
1934 . . .	17,160	102,932	120,092
1935 . . .	33,435	126,351	159,786
1936 . . .	55,209	169,368	224,577
1937 . . .	57,000	290,599	347,599

Caustic Soda (in 1,000 tons).

Years.	Home production.	Imports.	Exports.	Home consumption.
1936 . . .	272	12	24	260
1937 . . .	341	27	6	362
1938 . . .	411 (estimated) ...	...	...	...

A five-year production plan to make Japan entirely self-sufficient in the supply of those two materials is now being vigorously pushed.

A five-year production plan to make Japan entirely self-sufficient in there are at present in Japan 30 large textile mills fully furnished with up-to-date equipments for the manufacture of staple fibre. Their aggregate daily production now come to about 600 tons but they possess capacity to turn out 786 tons per day. The names of those mills and their capacities for daily production of staple fibre are given below. It may be mentioned that most of these factories produce in addition artificial silk.

Names of Mills.

Capacity for daily production.

	Tons.
Shinko Jinken	55
Tokyo Jinken	55
Taiyo Rayon	92
Kanegafuchi Spinning	35
Toyo Spinning	40
Toyo Silk Weaving	39
Toyo Rayon	23
Nitto Spinning	60
Boki Manufacturing	30
Toho Jinsen	30
Nissin Rayon	24
Dai Nippon Spinning	23
Nippon Jinzo Sen-i	26
Fukushima Jinken	25
Kurashiki Silk Spinning	24
Nisso Jinken Pulp	24
Shin-Nippon Rayon	30

Names of Mills.	Capacity for daily production.	
	Tons.	
Meisi Rayon	20	
Idzumo Seishoku	20	
Nippon Rayon	20	
Nippon Jinzo Yomo	15	
Nigata Jiuken	14	
Nippon Wultz	12	
Hinode Boshoku	16	
Fuji Sen-i	10	
Teikoku Jinken	10	
Asahi Benberg	4	
Kinkwa Jinken	6	
Showa Jiuken	3	
Toyoda Komen	1	
Total	786	

5. Three different systems are adopted in Japan for spinning of staple fibre, viz:—

- (1) cotton spinning system,
- (2) waste silk spinning system, and
- (3) worsted and woollen spinning system

For the cotton spinning system, the fibre is cut into about 38 mm. and is used for spinning 10's to 60's yarns. For the waste silk spinning system, the fibres are cut into 160 to 200 mm. in length and spun with silk spinning machines and 50's to 140's yarns are produced. These following the worsted and woollen spinning system, cut the fibre into about 160 mm. (which are mainly used for mixing with wool) and yarns 50's to 90's are spun out of them.

The fibres produced are classed into 'Bright' and 'Dull'. The result of a scientific test conducted by an expert regarding the temperature maintaining quality of staple fibre as compared with raw cotton and wool is as follows:—

	Thickness in C. M.	Density Gram per c.c.m.	Heating con- ductivity.
Egyptian cotton—			
High	0.502	0.0122	89.0
Low	0.460	0.1681	90.6
Viscose staple fibre—			
High	0.495	0.0235	85.9
Low	0.472	0.1590	89.1
Wool (Merino)—			
High	0.493	0.0237	83.9
Low	0.500	0.1623	83.6

(N.B.—Heating conductivity: smaller figures indicate larger heat-maintaining capacity.)

As regards the effect of Ultra Violet Rays and Ultra Red Rays on the textiles made from pure staple fibre and from staple fibre-cum-cotton, the following result is given:—

	Textiles made from staple fibre only.	Textiles made from a mixture of 70 per cent. staple fibre and 30 per cent. cotton.	Textiles made from 50 per cent. staple fibre and 50 per cent. cotton.	Textiles made from 80 per cent. staple fibre and 20 per cent. cotton.
	Per cent.	Per cent.	Per cent.	Per cent.
Ultra Violet Rays	67.72	48	50	61.67
Ultra Red Rays .	67.2	60	62.5-64	65

6. The development of staple fibre production in Japan as compared with other countries is illustrated by the following figures:—

World production of staple fibre (in million lbs.).

	1934.	1935.	1936.	1937.
Japan . . .	5.40	13.40	45.30	155.30
Germany . . .	19.20	34.30	99.00	173.50
Italy . . .	21.30	65.30	108.90	150.80
Great Britain .	3.80	9.90	27.00	34.60
United States of America . .	2.50	6.05	12.10	19.00
France . . .	4.50	7.90	11.70	13.50
Poland . . .	0.65	0.75	1.40	3.20
Holland . . .	...	...	0.95	1.40
Others . . .	...	...	0.40	1.00
Total .	57.35	137.60	306.75	552.30

As compared with 1934, staple fibre output rose in Germany more than nine times, in Italy over seven times, in Great Britain almost exactly nine times, in the United States not quite eight times, in France three times, but in Japan nearly twenty-nine times. In view of the present intensive official encouragement, production of staple fibre in Japan is expected to increase by leaps and bounds.

Exports of staple fibres and yarns from the principal producing countries are shown in the following table:—

(In million lbs.).

	1936.	1937.
Japan	8.45	26.75
Germany	9.50	16.70
Great Britain	3.75	6.40
Italy	30.80	35.50
Franco	4.30	4.95
Total .	56.80	90.30

Exports of staple fibre, piecegoods and yarn from Japan are indicated below:—

	Piecegoods (in 1000 sq. Yds.)		Fibres (in 1000 kin.)		Yarn (in 1000 kin.)	
	Total.	To India.	Total.	To India.	Total.	To India.
1937.						
January to June	4,910	340	87,568	1,333	27,668	4,595
July	1,625	46	14,641	32	5,666	660
August	1,157	59	3,818	..	4,715	666
September	2,421	44	3,641	2	5,842	1,571
October	2,244	32	567	45	4,945	2,497
November	1,866	76	858	39	3,814	2,016
December	2,541	91	572	2	8,775	2,733
1938.						
January	1,608	22	149	..	5,563	2,671
February	1,319	28	139,419	..	635,376	266,010
March	2,756	45	2,646	..	348,152	91,536

The Japanese exports trade in staple fibre products, as in many other articles, has received a temporary setback owing to the loss of the China market at least for the present. Nevertheless, the staple fibre and rayon industries have assumed an importance which is second only to the long-established cotton textile industry.

7. According to the Japan Staple Fibre Association, the cost of production of staple fibre is as follows:—

Cost of producing 100 lbs. of staple fibre in a mill where 20 tons of fibre is produced per day.

	Yen.	Per cent.
Pulp	19.5	39
Chemicals	15.0	30
Fuel and Power	5.0	10
Workers	5.0	10
Articles consumed	2.0	4
Freights and business charges	3.5	7
Total	50.0	100

The estimate of cost of production as gathered from another source is given below:—

Production cost per ton.

	Yen.
Pulp	250
Chemicals	250
Workers' charges	150
Power	150
Business expenses	150

950 per ton of 2,000 lbs. (American ton) or roughly Yen 47·50 per 100 lbs.

Yet another estimate puts the cost of production at Yen 53·20 per 100 lbs. made up of the following items:—

	Yen.
Pulp	16·20
Chemicals, etc.	25·00
Working charges	12·00
Total	53·20

It will be observed that pulp and caustic soda are the determining factors that govern the cost of production.

8. The Japanese Government have recently fixed maximum legal prices of staple fibre, staple fibre yarn and cotton-staple fibre mixed yarns in order to ensure fair distribution and selling prices of these goods in the internal market. These price regulations have been enforced since June 1938. The following are the prices fixed for staple fibre and yarns:—

Staple fibre (100 lbs.).

Delivery—	Bright.	Dull.
	Yen.	Yen.
June	65·00	75·00
July	65·00	75·00
August	65·00	75·00
September	65·00	75·00
October	65·00	75·00
November	65·00	75·00
December	68·00	75·00

Staple fibre yarn (100 lbs.).

	20's Single.	20's two-ply.
	Yen.	Yen.
June	93'00	96'50
July	93'00	96'50
August	93'00	96'50
September	93'00	96'50
October	93'00	96'50
November	93'00	96'50
December	93'00	96'50

9. In Japan staple fibre is also being used for purposes other than for textile industry. For instance, a company known as the Sen-i-Kegawa Kaisha (Fibre Furs Company) which was established sometime ago with a capital of one million yen for the purpose of manufacturing furs from dropped hairs of animals, has recently succeeded in manufacturing furs with staple fibre wastes. They are now reported to have increased their capital ten times in order to turn out this fur in large quantities at different centres.

(6) *Letter No. F. 43 (7)/38, dated the 21st February, 1939, from R. R. Saksena, Esq., Indian Government Trade Commissioner in Japan, Osaka, to F. I. Rahimtoola, Esq., C.I.E., President, Tariff Board.*

In continuation of my D. O. letter* No. 43 (7)/38 of November 24, 1938, I enclose a set of more up-to-date figures relative to the Japanese Silk Industry, which have just been received from the Bureau of Sericulture, Tokyo.

Number of Mechanical Reeling Factories and Basins used in them.

	1936.		1937.	
Number of basins used.	Factories.	Basins.	Factories.	Basins
Less than 10 Basins . . .	191	1,269	121	830
Over 10 and less than 50 .	1,040	28,797	724	20,010
Over 50 and less than 100 .	589	39,705	433	29,962
Over 100 and less than 300	495	79,257	464	75,714
Over 300 and less than 500	98	37,080	98	36,544
Over 500 and less than 1,000	54	35,139	51	32,487
Over 1,000 basins . . .	1	1,000	1	1,000
Total	2,468	222,247	1,892	196,547

Number of silk seed producers and quantity of production.

Year.	Number of producers.	Quantity produced (Grammes.)
1936	3,827	213,891,218

* Not printed.

*Expenditures required for Production and Sale of Machine Reeled Raw Silk
(per 100 kin=1 Pct.) 1935.*

Items.	Amount.
	Yen.
Salaries, allowances and bonuses	8.90
Workers' wages, allowances and bonuses	54.12
Fuel	18.52
Electric Power and Light	3.29
Cuisine materials and catering	17.25
Insurance	1.63
Packing charges	1.81
Commissions given for sales of silk	6.90
Cocoon dryers' charge	3.63
Commissions given for purchase of cocoons	4.36
Expenses for inviting workers . . . . .	.25
Storage	1.32
Conveyance and transportation	6.36
Communications . . . . .	.92
Travelling expenses	2.72
Taxes and rates	3.64
Interest paid	15.87
Articles consumed	2.54
Ground rent . . . . .	.91
Equipments for promotion of Workers' happiness	3.63
Repairing charges	6.17
Sundry expenses	16.86
Total Expenditure	181.61

N.B.—There is an income of Yen 33 from Bye-products, therefore, the net cost shall become Yen 148.61.

The above total is the cost of production and sale of raw silk investigated according to the Law of Stabilization of Raw Silk prices, during June, 1935, to May, 1936.

Production of Raw Silk in Japan.

	1936.		Weight in Kwan (Value in Yen).	
	Weight.	Value.	Weight.	Value.
Gross Total—				
Total	11,287,329	517,246,143	11,166,553	527,320,631
White yarn	9,621,836	442,153,148	9,648,493	458,437,242
Yellow yarn	1,665,493	75,092,995	1,518,060	68,883,389
Machine reeled—				
Total	10,522,898	493,838,618	10,332,468	501,454,937
White yarn	8,909,376	420,386,250	8,870,403	434,341,003
Yellow yarn	1,613,522	73,452,368	1,462,065	67,113,934
Hand reeled—				
White yarn	278,441	10,698,537	337,108	12,499,166
Yellow yarn	34,718	1,222,172	34,590	1,230,242
Dupion—				
White yarn	434,019	11,063,361	440,982	11,597,073
Yellow yarn	17,253	418,455	21,405	539,213

Wages of Workers (in Yen per capita).

	1936.	1937.
Male workers	1.31	1.36
Female workers reeling	0.66	0.70
Female workers for re-placing	0.64	0.67
Male workers for bundling	0.94	1.04
Female workers for bundling	0.68	0.71
Male workers for boiling	0.70	0.89
Female workers for boiling	0.58	0.63
Female workers for selection of cocoons	0.60	0.63
Male workers of sundry works	0.80	0.82
Female workers of sundry works	0.63	0.63
Total average	0.76	0.81

Quantities of cocoon produces (in 1,000 kwan.).

	Total.	Grand Total.		Spring Cocoons.		Summer and Autumn Cocoons.	
		White.	Yellow.	White.	Yellow.	White.	Yellow.
1936	82,892	71,731	11,162	30,289	11,104	41,442	58
1937	85,972	72,616	13,356	32,180	13,324	40,436	32

55. The Indian Government Trade Commissioner in the United States of America, New York.

(1) *Letter No. 508, dated the 13th May, 1938, from the Tariff Board, to the Indian Trade Commissioner in the United States of America, 58, East 57th Street, New York.*

The Tariff Board are at present investigating the question of granting protection to the Sericultural Industry. The Board would be grateful if you could send them—

- (1) samples (with prices) of Japanese and Chinese raw silk imported into the United States of America;
- (2) a comparative statement of the price in the United States of America of Indian raw silk and silk fabrics and similar articles imported from other countries;
- (3) information regarding the import of staple fibre into the United States of America and the extent to which it competes with raw silk;
- (4) your opinion regarding the quality of Indian raw silk and silk fabrics imported into America and the estimation in which they are held in business circles; and
- (5) any other information which in your opinion is likely to prove useful to the Board.

2. The Board would also be grateful if you could send them any important publications available on the subject. The Board will bear all expenses.

- (2) *Letter No. 363, dated the 17th August, 1938, from H. S. Malik, Esq., O.B.E., I.C.S., India Government Trade Commissioner, New York, to the Secretary, Tariff Board.*

I have the honour to refer to your letter No. 508, dated May 13, 1938, in which you have asked for information regarding silk in the United States of America.

I have, at the outset, to express regret that a reply to your letter could not be sent earlier. The delay has been due to unavoidable circumstances. In the first instance, your letter was mislaid among the papers awaiting my arrival here last month. Subsequently, when it came to notice, I was extremely busy with the preliminary arrangements in connection with the organization of my work here and the recruitment of staff. I have, however, now been able to make some inquiries regarding the matters referred to in your letter, and am sending you such information as it has been possible to collect which, I trust, will be of value to the Tariff Board.

I am sending, under separate cover by Parcel Post, eleven samples of Japan and three samples of China Raw Silk as imported into the United States of America. Statement "A", attached herewith, gives the descriptions and the prices of the samples sent. Raw silk imports into the United States of America are free of Customs duty.

I regret that it has not been possible to obtain the comparative prices of Indian raw silk and silk fabrics and similar articles imported from other countries asked for in paragraph 1-(2) of your letter under reply. There have been no United States of America imports of raw silk in commercial quantities from India for some years past, and it has consequently not been possible to ascertain its price. 1929 is the most recent year for which any figures of imports of raw silk from India are available. In that year 140 lbs. were imported at an average price of \$4.51 per lb. During the same year, the average prices of raw silk imported from China and Japan, as ascertained from the import figures, were \$4.14 and \$5.03 per lb. respectively.

As regards fabrics, it is practically impossible to quote comparative prices. Imports of silk fabrics from India are negligible and are confined to special types and kinds of fabrics only, e.g., hand-printed silk, hand-loom woven silk, etc. These types of fabrics are imported for special requirements, such as ladies dresses, and have only a very restricted use. Imports of silk fabrics from China and Japan, on the other hand, are very large and include fabrics that are used for the manufacture of articles in general commercial use. A comparative idea of the extent of imports from Japan and India may be obtained from the following figures: in 1936, for instance, imports from India were valued at \$11,000, while the value of those from Japan amounted to no less than \$3,500,000. Because of the comparative smallness of imports from India and the fact that silk fabrics imported from India are not strictly comparable with those imported from Japan and China, I have not been able to obtain any comparative price quotations for Indian silk fabrics. The general sentiment, however, prevalent in New York is that the India fabrics are considerably more expensive than the Chinese and Japanese, and though they may have an appeal because of their distinctive character, that appeal is essentially confined to a small market. In this connection, it will be of interest to see the statement made by the Director of Commercial Research of the National Federation of Textiles in New York. This is what he said: "We regret that we have no means of evaluating the price of Indian raw silk and silk fabrics in the United States, since Indian raw silk imports are a very small percentage of the silk used in the United States".

It will also, perhaps, interest the Tariff Board to see the book of samples from Japan which I am sending along with the samples of raw silk. These samples are representative of the cloth imported in considerable

quantities from Japan and used, I understand, as a basis for the manufacture of light water-proof garments and cloths.

Statement "B", attached, shows imports for consumption into the United States of America of staple fibre during the last three years as well as the comparative figures of consumption in 1937 in this country of rayon and pure silk yarn. The various articles for which these yarns are used have been shown separately in the statement. I would add that there has, during recent years, been a considerable expansion in the production of staple fibre in the United States of America and that further important developments in this direction are expected. Generally speaking, there is still a very considerable demand for pure silk for the higher grade and more expensive articles but the competition from rayon, the quality of which is being constantly improved, is steadily growing.

I regret that I have not been able to obtain any publications of particular relevance to the matter under inquiry. The United States of America Tariff Commission issued a report in 1922 on the Silk Industry and I was hoping to secure a copy for transmission to you. Unfortunately, however, the report is now out of print and no copies are available. In any case, I am afraid that the length of time that has elapsed since the report was published makes a lot of the material contained in it completely out-of-date.

I fear that the information contained in this letter and the statements attached therewith is somewhat sketchy, and may not be of any great assistance to the Tariff Board, but it is all that it has been possible to collect. My whole difficulty in dealing with this case has been that the Indian articles, both in its raw and manufactured form, enters this country either not at all or in such small quantities and at such irregular intervals that business circles here know very little about it. So that any valuable commercial opinion is almost out of the question. It may perhaps be of interest, however, to know that there is a general feeling here at present that, in view of the uncertainty of future supplies from China and Japan on account of the disturbance in those countries caused by the war, the present is an excellent time for India to take the place of China and Japan as a source of supply for America. If India can send over here silk fabrics such as those which are shown in the book of samples that I have sent, and at suitable prices, it should be possible to build up an important trade with this country.

STATEMENT "A".

DESCRIPTION (WITH PRICES) OF JAPANESE AND CHINESE RAW SILK SENT UNDER SEPARATE COVER.

Origin.	Colour.	Denier.	Percentage of Evenness.	Price in U. S. Per lb.
Japan . .	White . .	13/15	90	1.95
			87	1.85
			85	1.80
			83	1.76
			81	1.74
			78	1.72
Japan . .	White . .	20/22	81	1.63
			78	1.61
Japan . .	Yellow . .	20/22	87	1.70
			83	1.65
			81	1.52
			78	1.50
China . .	White . .	20/22	83	1.68
			81	1.60
			78	1.58

STATEMENT " B ".

IMPORTS OF STAPLE FIBRE INTO THE UNITED STATES OF AMERICA AND THE
EXTENT TO WHICH IT COMPETES WITH RAW SILK.

United States imports for consumption of Rayon Staple Fibre.
(Thousands of pounds.)

	1935.	1936.	1937.
Japan	809	6,218	11,689
Italy	687	4,659	5,639
Great Britain . .	4	1,587	3,095
Others	57	254	187
Total	<u>1,457</u>	<u>12,718</u>	<u>20,610</u>

Comparison of consumption of Rayon Yarns and Silk Year 1937 (estimated).

	Pounds of Yarn.	
	Rayon.	Silk.
Woven goods—		
Dresses	138,000,000	6,200,000
Piece Goods (sold by the yard)	16,500,000	2,000,000
Linings	22,000,000	500,000
Underwear (also see Knit Goods)	20,000,000	5,500,000
Velvets	5,000,000	1,500,000
Nechwear Fabrics	4,000,000	800,000
Narrow Fabrics, Ribbons, etc.	6,000,000	1,000,000
Marquisettes	2,500,000	...
Bedspreads	4,000,000	...
Tapestries, Draperies and Upholsteries	11,500,000	100,000
Knit goods—		
Circular-Knit Underwear . .	26,000,000	...
Hosiery	14,000,000	35,000,000
Flat-knit underwear and gloves	7,000,000	100,000
Knit outerwear	8,000,000	300,000
Other knit goods	500,000	...
All other uses	15,000,000	1,000,000
Total	<u>300,000,000</u>	<u>54,000,000</u>

1937 Yardages of principal Rayon and Silk Woven Items (estimated).

	Yards of Fabric.	
	Rayon.	Silk.
Dresses	700,000,000	50,000,000
Underwear	125,000,000	45,000,000
Piece Goods	85,000,000	15,000,000
Linings	90,000,000	2,500,000

(3) *Letter No. 1298, dated the 16th November, 1938, from the Tariff Board, to the India Government Trade Commissioner, New York.*

I am directed to acknowledge, with thanks, the receipt of your letter No. 363, dated the 17th August, 1938, and of the eleven samples of Japan and three samples of China raw silk together with a book of samples from Japan under separate parcel post. The Board has noticed from a note furnished by Mr. R. R. Saxena, Indian Government Trade Commissioner, Osaka (Japan), that raw silk produced in Japan is classified into ten grades, viz., Special, AAA, AA, A, B, C, D, E, F and G, and that grade D is fixed as the standard for transactions in the market. The Board believes that it is only the higher grades that are exported to the United States of America, and I am to request you to be so good as to indicate to what grade the samples of Japanese raw silk sent by you pertain.

2. A description of these samples is given in statement "A" which accompanied your letter and a copy of which is sent herewith for ready reference.

STATEMENT "A".

DESCRIPTION (WITH PRICES) OF JAPANESE AND CHINESE RAW SILK SENT UNDER SEPARATE COVER.

Origin.	Colour.	Denier.	Percentage of Evenness.	Price in U. S. per lb.
Japan	White	13/15	90	1.95
			87	1.95
			85	1.80
			83	1.76
			81	1.74
			78	1.72
Japan	White	20/22	81	1.63
			78	1.61
Japan	Yellow	20/22	87	1.70
			83	1.65
			81	1.53
China	White	20/22	83	1.63
			81	1.60
			78	1.58

(4) *Letter No. 363, dated the 29th November, 1938, from the India Government Trade Commissioner in the United States of America, New York, to the Secretary, Tariff Board.*

I have the honour to refer to your letter No. 1238, dated November 10, 1938, in which you have asked for further information regarding the samples of silk that were sent to you with my letter of August 17, 1938. The statement below gives the grading of the samples:—

Origin.	Colour.	Denier.	Percentage of Evenness.	Price in U. S. per lb.	Japanese Grading.
Japan	. White .	13/15	90	1.95	AAA
			87	1.85	AA
			85	1.80	A
			83	1.76	B
			81	1.74	C
			78	1.72	D
Japan	. White .	20/22	81	1.63	CW 20/22
			78	1.61	DW 20/22
Japan	. Yellow .	20/22	87	1.70	AA Y
			83	1.65	BY
			81	1.58	CY 20/22
China	. White .	20/22	83	1.68	B
			81	1.60	O
			78	1.58	D

56. Collector of Customs.

(1) *Circular letter No. 500, dated the 13th May, 1938, from the Tariff Board, to the Collectors of Customs, Calcutta, Bombay, Madras and Karachi.*

I am directed to say that when the Tariff Board was enquiring into the question of the grant of protection to the Sericultural Industry in 1933, they were informed that you supplied the Director General of Commercial Intelligence with statements showing the monthly market prices of the various tariff-valued descriptions of raw silk which were subject to tariff valuation. If you have continued to compile this information, the Board would be most grateful if it could be supplied with copies of these statements since April 1933. It would also assist the Board if you could state how this information is obtained and what trade discount, if any, is deducted from the market price in order to arrive at the tariff values. I am also to enquire under what item of the Tariff Schedule staple fibre is assessed and whether you can supply the Board with information showing the quantity imported since 1933. If not, whether arrangements can be made to obtain this information from now onwards. The Board would be grateful for an early reply to this letter.

(2) Letter No. 201, dated the 26th May, 1938, from the Collector of Customs, Calcutta, to the Secretary, Tariff Board.

I have the honour to refer to your letter No. 500, dated the 13th May, 1938.

2. No statements showing the monthly market prices of raw silk are now maintained in this office. As a large proportion of the imports into Calcutta are for up-country or Bombay merchants, I suggest a reference to Bombay for the detailed information required in this connection.

3. Staple fibre is assessable to duty under item 87 of the Indian Customs Tariff as 'A. N. O. S.' Staple fibre yarn is assessed under item 47 (2) *ibid.*

4. A statement showing imports of staple fibre and yarn into Calcutta from foreign countries from the year 1936-37 onwards is enclosed. The figures prior to April, 1936, are not available as no separate statistics of their imports were maintained.

Statement showing the imports of staple fibre and yarn into Calcutta from foreign countries during the years 1936-37, 1937-38 and 1938-39 (up to 15th May).

	1936-37.		1937-38.		1938-39.	
	Lbs.	Rs.	Lbs.	Rs.	Lbs.	Rs.
(a) Raw (cut fibre) and waste :—						
From Japan . . .	6,048	2,839	2,200	966	..	..
(b) Yarn :—						
(i) Made of staple fibre only—						
From Italy . . .	..	..	4,080	3,050	..	..
„ Japan . . .	91,735	98,072	589,486	4,51,259	16,000	14,794
Total . . .	91,735	98,072	593,566	4,54,309	16,000	14,794
(ii) Made of staple fibre mixed with other textile fabrics—						
From Japan . . .	36,148	78,871	66,465	1,22,639	..	..

(3) Letter No. C. 707/38, dated the 26th May, 1938, from the Collector of Customs, Bombay, to the Secretary, Tariff Board.

I have the honour to refer to your letter No. 500, dated the 13th May, 1938.

2. Figures of imports of staple fibre for the year 1933-34 are not available as prior to April, 1937, they were not separately recorded for statistical purposes. Figures of imports of staple fibre for the two years 1935-37 and

of staple fibre yarn for 1936-37 are, however, available from a special register which has been maintained. The figures for the last three years are as under:—

		Staple fibre.		Staple fibre yarn.	
		Lbs.	Rs.	Lbs.	Rs.
1935-36	. .	148,153	75,995	...	...
1936-37	. .	209,764	91,026	361,609	2,40,257
1937-38	. .	29,713	13,996	1,758,429	14,11,988

3. Since April, 1937, imports of staple fibre and yarn are being shown in the trade returns under specific heads. There will therefore be no difficulty in furnishing the figures of imports to the Tariff Board.

4. Staple fibre is assessed at 25 per cent. under item 87 of the Tariff and staple fibre yarn under item 47 (2) at 25 per cent. *ad valorem*, or 3 annas per lb. whichever is higher.

5. As for the monthly market prices of the various tariff-valued descriptions of raw silk, I would refer you to the "Statements showing the average market prices at the Port of Bombay of the articles liable to duty at Tariff values" printed copies of which are supplied regularly to the Tariff Board every month. The values given in the statements are the average market rates for different qualities of raw silk under each category and are obtained from the trade. The usual trade discount in the raw silk trade is $1\frac{1}{4}$ per cent.

(4) *Letter No. R. O. R. 843/38, dated the 3rd June, 1938, from the Collector of Customs, Madras, to the Secretary, Tariff Board.*

TARIFF—PROTECTION TO THE SERICULTURAL INDUSTRY—RAW SILK AND STAPLE FIBRE.

I have the honour to refer to your letter No. 500, dated the 13th May, 1938, and to furnish below the required information.

1. Statements showing the monthly market prices (cum duty) of the various tariff-valued descriptions of raw silk are furnished to the Director General of Commercial Intelligence and Statistics, Calcutta. A statement of such values since April, 1933, is enclosed.

2. The values are obtained from enquiries in the open market and also from the values declared in the bills of entry.

3. The market prices of the articles given are nett, i.e., not subject to any trade discount.

4. The tariff values are fixed by the Director General of Commercial Intelligence and Statistics after Appraisers' Conference held annually at Calcutta in the month of October and with reference to the average ex-duty market values prevailing at all the major ports.

5. Staple fibre is assessed at 25 per cent. *ad valorem* under item 87 of the Indian Customs Tariff as "all other articles not otherwise specified".

6. A record of the quantity and value of imports of staple fibre into the Madras Presidency has been maintained from the year 1935-36.

7. A statement of such imports commencing from that year is also enclosed. Figures for the subsequent imports will be furnished if required by you.

*Statement of market prices (cum duty) of Raw Silk assessable on Tariff values
from April 1933 to April 1938.*

Articles.	1933 Current Tariff Value Rs. 4 per lb.	1934 Current Tariff Value Rs. 3 per lb.	1935 Current Tariff Value Rs. 3 per lb.	1936.	1937.	1938.
	Rs. A.	Rs. A. P.	Rs. A. P.	Rs. A.	Rs. A.	Rs. A.
Item 46.—Indian Customs Tariff— Silk, Raw, China—						
Yellow Shanghai—						
January . .	..	3 8 0	3 8 3	..	..	..
February . .	..	3 10 0	..	..	..	..
March . .	..	3 10 0	..	..	..	..
April . .	4 2	3 9 0	..	..	..	..
May . .	4 10	3 9 0	..	..	..	..
June . .	4 7	3 8 0	..	..	..	..
July . .	4 7	3 8 0	..	..	..	..
August . .	4 2	3 6 0	..	..	..	..
September . .	4 1	3 6 0	..	..	..	..
October . .	4 1	3 6 3	..	..	..	..
November . .	4 0	..	..	..	..	..
December . .	3 14	3 7 8	..	..	..	..
Duppon all kinds—						
June . .	..	..	Current T. V. Rs. 3 per lb.	..	Current T. V. Rs. 1 8 4 14	..
All other sorts—						
February . .	..	..	3 7 0	..	Current T. V. 2 10 0 per lb.	..
March . .	..	..	3 6 0	..	..	..
April . .	..	..	3 7 0	..	..	..
May . .	..	..	3 9 0	..	3 8	..
June . .	..	..	3 8 0	..	..	..
July . .	..	..	3 13 6	..	4 8	..
August . .	..	..	..	..	4 0	..

Statement of market prices (cum duty) of raw silk assessable on Tariff values from April, 1933 to April, 1938.

Articles.	1933 Current Tariff Value Rs. 4 per lb.	1934 Current Tariff Value Rs. 3 per lb.	1935 Current Tariff Value Rs. 3 per lb.	1936.	1937.	1938.
	Rs. A.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A.	Rs. A.
All other sorts— <i>contd.</i>						
September
October	6 8	..
November
December
Raw Silk from Japan—				Current T. V. Rs. 3-2 per lb.		T. V. Rs. 4-12 per lb.
Japanese filatures—						
January	5 14
February	6 6 6	..	5 14
March	6 6 6	..	5 14
April	6 6 6	..	5 12
May	5 6 0	..	..
June	5 14 0	..	..
July	5 12 0	..	..
August	5 2 0	..	..
September	6 11 0	..	..
October	6 14 0	..	..
November	5 15 0	..	..
December	5 15 0	..	..

Statement showing imports of staple fibre into the Madras Presidency for 3 years commencing from 1935-36.

Articles.	1935-36.		1936-37.		1937-38.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	lbs.	Rs.	lbs.	Rs.	lbs.	Rs.
Staple fibre—						
From United Kingdom.	396	298	560	246	860	552
From Netherlands .	103	77	..	..	..	..
„ Japan . .	400	211	1,792	941	158,000	71,660

- (5) *Letter No. C. 1012/38, dated the 6th June, 1938, from the Collector of Customs, Custom House, Karachi, to the Secretary, Tariff Board.*

SERICULTURAL INDUSTRY—PROTECTION TO.

I have the honour to refer to your letter No. 500, dated the 13th May, 1938.

2. Statements showing the monthly market prices of raw silk have never been supplied to the Director General of Commercial Intelligence and Statistics by this Custom House. There is no local market here for raw silk and hence its market price is not known.

3. Staple fibre is assessed under item 87 of the Indian Customs Tariff in accordance with the order of the Central Board of Revenue contained in its letter D. Dis. No. 997-Cus. 1/36, dated the 8th September, 1936.

4. 60,295 lbs. of staple fibre and yarn valued at Rs. 46,575 were imported during the year 1937-38. Figures for the previous years are not available. This information can be supplied from now onwards at regular intervals.

- (6) *Letter No. 6/B, dated the 30th June, 1938, from the Secretary Tariff Board, to the Collectors of Customs, Calcutta, Bombay, Madras and Karachi.*

The Tariff Board has been informed in the course of its Sericultural Enquiry that a large proportion of the artificial silk which is being imported into India consists of twisted silk. The Board is anxious to verify this statement and would be grateful if you can supply it with separate figures for these two classes of artificial silk from April, 1938. Information is also required concerning the difference in price of these two articles.

- (7) *Letter No. 342, dated the 19th July, 1938, from the Collector of Customs, Calcutta, to the Secretary, Tariff Board.*

ARTIFICIAL SILK.

I have the honour to refer to your letter No. 6/B, dated the 30th June, 1938.

2. The description 'twisted silk' in the first sentence of your letter apparently refers to "twisted artificial silk", i.e., to "art silk yarn" and not to "real silk".

3. It is not possible to furnish the information asked for in the last sentence of your letter. The price of artificial silk yarn is available but artificial silk consists of various categories such as piecegoods, apparel, hosiery, etc., which are priced on a different basis in each case and the prices cannot therefore be lumped together.

- (8) *Letter No. 918/38, dated the 20th July, 1938, from the Collector of Customs, Bombay, to the Secretary, Tariff Board.*

ARTIFICIAL SILK TWISTED YARNS—IMPORTS, ETC.

I have the honour to refer to your letter No. 6/B, dated the 30th June, 1938.

2. Separate figures for artificial silk yarns, twisted (i.e., doubled) and single are not available as imports of both those varieties are registered here for statistical purposes under the head "artificial silk yarn".

3. Artificial silk twisted or doubled yarns are imported here from Japan and Italy, usually in two styles, viz., 160/2 and 120/2 deniers. The imports are not considerable and enquiries show that they are about 5 to 7 per cent. of the total imports of artificial silk yarns.

4. At present the local ruling rates for Japanese artificial silk twisted yarns are practically on a par with the rates for single yarns of the same deniers. Ordinarily, however, the c.i.f. costs of doubled yarns are about 10 Yens or Rs. 8 per 100 lbs. higher than those of single yarns. The Italian artificial silk yarns are comparatively dearer. The Syndicate ex-godown prices are Rs. 1-3-6 per lb. for 160/2 and Rs. 1-3 per lb. for 120/2. The price of single yarn of the same deniers and quality is As. 11-9 per lb.

(9) *Letter No. R. O. R. 1129/38, dated the 19th July, 1938, from W. J. Ward, Esq., B.A., Collector of Customs, Madras, to the Secretary, Tariff Board.*

ARTIFICIAL SILK CONSISTING TWISTED SILK—IMPORTS OF.

I have the honour to refer to your letter No. 6/B, dated the 30th June, 1938.

2. It is presumed that the term "twisted silk" refers to (1) artificial silk yarn mixed with other textiles or staple fibre excluding silk and (2) silk yarn made from silk waste or noils mixed with artificial silk or other textiles or staple fibre. Imports of these two kinds of yarn are being separately recorded in the trade statistics from April, 1938 and I enclose a statement showing figures of imports of the two kinds from April, 1938 to June, 1938.

3. No other local information regarding the relative prices is available.

From April, 1938 to June, 1938 (Imports into the Madras Presidency).

	Chief Port (Fort Saint George.)		Tuticorin.		Total.	
	lbs.	Rs.	lbs.	Rs.	lbs.	Rs.
*97-9(i)—Artificial silk yarn—						
<i>April 1938.</i>						
From Japan . . .	10,000	5,390	24,600	15,741	34,600	21,131
<i>May 1938.</i>						
From Japan . . .	..	..	4,000	2,186	4,000	2,186
,, Italy . . .	8,000	4,785	..	..	8,000	4,785
Total . . .	8,000	4,785	4,000	2,186	12,000	6,971

* Serial number as per prescribed list of articles for foreign import trade.

	Chief Port (Fort Saint George).		Tuticorin.		Total.	
	lbs.	Rs.	lbs.	Rs.	lbs.	Rs.
*97-9(i)—Artificial silk yarn — <i>contd.</i>						
June 1933.						
From Japan . . .	10,000	5,465	30,800	17,044	40,800	22,509
„ Italy . . .	10,000	4,698	..	..	10,000	4,698
Total . . .	20,000	10,163	30,800	17,044	60,800	27,207
*97-9(ii)—Artificial silk yarn mixed with other textiles or staple fibre excluding silk.	..	..	..	Nil	..	..
*97-7(b) (iii)—Silk yarn made from silk waste or noils mixed with artificial silk or other textiles or staple fibre.	..	..	..	..	..	..
May 1933.					Cocanada (only)	
From Japan . . .	..	..	..	..	662	1,484

(10) Letter No. C. 1433/38, dated the 20th July, 1938, from the Collector of Customs, Karachi, to the Secretary, Tariff Board.

Subject.—SERICULTURAL ENQUIRY —ARTIFICIAL SILK, TWISTED—IMPORTS OF.

I have the honour to refer to your letter No. 6/B, dated the 30th June, 1938.

2. Imports of artificial silk yarn twisted with silk have not been noticed at this port.

3. Twisted artificial silk yarn is regularly imported at this port. Usually the price of this kind of yarn is about 25 per cent. or 3 annas per lb. higher than that of the plain variety; and this is due to the difference in price always existing in the supplying countries of Japan and Italy. But at present there is practically no difference in price between the two varieties of yarn in the consuming centres in India owing to the plain or single fold yarn being more in demand and stocks in India being depleted.

4. No separate statistics of imports of twisted and plain artificial silk yarn are maintained in this Custom House. It can, however, be stated from experience that imports of the two varieties are about equal in quantity.

* Serial number as per prescribed list of articles for foreign import trade.

(11) *Demi-official letter No. 636, dated the 25th June, 1938, from N. J. Roughton, Esq., C.S.I., C.I.E., I.C.S., Secretary, Tariff Board, to P. N. Chandavarkar, Esq., Collector of Customs, Bombay.*

The Collector of Customs, Bombay, in December, 1935 supplied the Government of India with an estimate of the consumption of artificial silk yarns by mills and handlooms. The Tariff Board would be most grateful if you could supply it with a similar estimate now. It would be convenient if details of the consumption were given under the same heads as in 1935. In order to show you what was done then, I enclose a copy of the letter containing the information then supplied

Enclosure.

D. O., dated the 30th December, 1935, from the Collector of Customs, Bombay, to the Hon'ble Mr. T. A. Stewart, C.S.I., I.C.S.

As desired I am sending herewith a note and statement prepared by Appraiser Mr. Ghandy after making further enquiries.
A.C.A.

I have made careful enquiries in the market and at Courtaulds (India) Ltd., and the information gathered by me is as under:—

The approximate imports of foreign artificial silk yarns in the year 1934-35 amounted to about 16,614,949 lbs. out of which the Indian Handloom Industry consumed about 82 per cent. of the imported stuff, while the Indian Textile Mills consumed only about 18 per cent.

In the Handloom Industry artificial silk yarns have replaced cotton yarns to the extent of about 40 per cent., e.g., cotton coloured fancy saris which were the rage four years ago have now been replaced by attractive artificial silk ones at practically the same cost. Further, the handloom industry uses a fairly large percentage of dull lustre silk yarns which is a good substitute for foreign Schappé spun silk yarns. Lastly the Handloom Industry makes a lot of mixed stuff where also artificial silk yarns have replaced foreign spun silk yarns.

The use of artificial silk yarns by the Indian Handloom Industry does not affect the Indian Silk (Sericultural) Industry much as the production of Indian Silk is yet very limited, the Silk Industry of Mysore and Kashmir cannot supply large quantities.

ESTIMATED CONSUMPTION.

Artificial Silk Yarns 1934-35.

	Lbs.
Mills for fabrics containing about 100 per cent. artificial silk	864,000
Mills for fabrics containing about 50 per cent. artificial silk	1,200,000
Mills for fabrics containing about 15 per cent. artificial silk	720,000
Mills for borders containing up to 10 per cent. artificial silk	280,000
Handlooms for fabrics containing 100 per cent. artificial silk	3,000,000
Handlooms for fabrics containing about 50 per cent. artificial silk	8,000,000
Handlooms for fabrics containing Borders and Headings of up to about 15 per cent. artificial silk	1,936,000
Hosiery and Miscellaneous	614,949
Total	16,614,949

- (12) D. O. No. 887/88, dated the 7th July, 1938, from Mr. P. N. Chandavarkar, Collector of Customs, Bombay, to Mr. N. J. Roughton, C.S.I., C.I.E., I.C.S., Secretary, Tariff Board.

Please refer to your D. O. No. 636, dated the 25th June, 1938.

I enclose a copy of a note, dated the 5th July, 1938, prepared by an Appraiser which contains the information required by the Tariff Board.

Copy of note, dated the 5th July, 1938, by Appraiser Mr. Madgaokar.

The total imports of artificial silk into India for the last three years are as under:—

	Lbs.
1935-36	14,911,162
1936-37	17,628,884
1937-38	31,589,038

It is evident from these figures that there has been a rapid advance in imports for the year 1937-38. This is mostly due to the heavy bookings of Japanese artificial silk owing to an apprehension that there would be a shortage in Japanese supplies on account of the Sino-Japanese conflict. From the trend of the market it may now be surmised that during the current year, i.e., 1938-39 imports will not reach the level of the preceding year and are estimated to be somewhere between 20 million to 25 million lbs. It is to be noted that during 1937-38 many artificial silk weaving factories for the manufacture of pure artificial silk fabrics have sprung up. Power looms numbering about 5,000 have been installed in these factories and about 10 per cent. of the imports of artificial silk yarns are consumed by these looms. As the year advances more looms are expected to operate. The consumption by the mill industry is estimated to be about 15 per cent. which means that 25 per cent. is roughly taken up by power looms. Out of the remaining, 1 per cent. is taken up by small industries such as hosiery and lace making and 74 per cent. is consumed by the handloom industry.

The general belief is that artificial silk yarns cannot replace silk yarns owing to the conspicuous different qualities of the two materials. To a certain extent only it can and that extent is little larger at present because of the advance in price of silk and the other higher overhead charges, e.g., duty which make it unprofitable for handloom weavers to weave silk in preference to artificial silk. What artificial silk really competes with is cotton mercerised yarns, because of value and the quality of lustre.

A rough estimate of the consumption of artificial silk by mills and handlooms would be as under:—

	Per cent.
Mills for fabrics containing 100 per cent. artificial silk	15
Mills for fabrics containing 50 per cent. artificial silk	5
Mills for fabrics containing 15 per cent. artificial silk	4
Mills for fabrics containing 10 per cent. artificial silk (for borders, etc.)	1
Handlooms for fabrics containing 100 per cent. artificial silk	15
Handlooms for fabrics containing 50 per cent. artificial silk	50
Handlooms for fabrics containing 15 per cent. artificial silk (for borders, headings, etc.)	9
Hosiery and Miscellaneous	1

- (13) *Letter No. 696, dated the 15th July, 1938, from the Tariff Board, to the Collector of Customs, Madras.*

Subject: EXPORTS OF RAW SILK.

I am directed to say that the Board has noticed from the Sea-borne Trade Accounts that the share of Madras in the exports of raw silk from India during the year 1936-37 amounted to 22,400 lbs. valued at Rs. 6,306 only. This gives an average declared value of a little over annas four per pound. The Board would be glad to be informed as to what kind of raw silk is represented by these figures, and, if possible the names of the places of origin of the exports may be indicated.

- (14) *Letter dated the 30th July, 1938, from the Collector of Customs, Madras, to the Secretary, Tariff Board.*

EXPORTS OF RAW SILK.

I have the honour to refer to your letter No. 696, dated the 15th July, 1938, and to state that the exports of raw silk referred to by you were declared in the Shipping Bills as "wild silk waste". A sample was examined and it has been ascertained that the article consists of a mixture of reeling and cocoon waste silk. The place of origin is the Mysore State.

- (15) *Letter No. 695, dated the 15th July, 1938, from the Tariff Board, to the Collector of Customs, Bombay.*

Subject: EXPORTS OF RAW SILK.

I am directed to say that the Tariff Board has noticed from the Sea-borne Trade Accounts that out of the total exports from India of raw silk in 1936-37 amounting to 46,178 lbs. valued at Rs. 1,09,170, Siam took 20,798 lbs. worth Rs. 96,364 and that the whole of it was exported from the port of Bombay. I am to request that the Board may, if possible, be informed of the places where the silk exported to Siam was produced.

- (16) *Letter No. 5-54/38-C., dated the 11th August, 1938, from the Collector of Customs, Bombay, to the Secretary, Tariff Board.*

EXPORTS OF RAW SILK.

I have the honour to refer to your letter No. 695, dated the 15th July, 1938.

2. The raw silk exported during 1936-37 was mulberry silk and has been ascertained to be produced in Kashmir.

- (17) *Note forwarded by the Collector of Customs, Madras, dated the 27th August, 1938.*

1. *How declared values are computed.*—In respect of goods assessable on tariff values, e.g., raw silk from China, Japanese flatures, etc., the assessed values on which duty is calculated are based on the tariff values current for the year. Apart from the assessable value however the importer is called upon to declare in his bill of entry the "real value" as defined in Section 30 of the Sea Customs Act. Section 30 (b) applies in the case of all the goods concerned in this reference imported at Madras, and the real value to be declared is in short the ordinary landed cost. The invoice prices showing the c.i.f. cost are converted into rupees (if they are not in rupees) at the selling rates for demand drafts quoted by the Exchange Banks, the rate applicable to a bill of entry being that quoted on the working day previous to the

date of the first presentation of the bill of entry in the Custom House. To this amount in rupees are added landing charges which are calculated at a conventional rate of Rs. 3-12 per ton. When the goods are not such as are assessable on tariff values, assessment is made on this real value.

2. *How the different classes of imported silk are assessed and how they are classified for Customs purposes?*—Silk is classified and assessed on the basis of Items 46, 46 (1), 47 (and foot-note) and 47 (1) of the Indian Customs Tariff—Fourteenth issue.

3. *Why the Customs returns do not show any imports of Japanese flature silk when we are told by the Bombay Silk Merchants' Association that this quality of silk is being imported through Bombay Port?*—Imports of Japanese flature silk are not shown in Customs returns because a separate recording has not been prescribed for purposes of the monthly or annual returns of the sea-borne trade—vide No. 97-7 (a) (iv) at page 23 of No. 1—Imports—From foreign countries, issued by the Department of Commercial Intelligence and Statistics, India, corrected up to April, 1938. Actually, so far as this Port is concerned nearly the whole of the imports of raw silk from Japan consists of Japanese flatures.

4. *What is the system adopted by the Customs authorities to ascertain the market prices of different kinds of raw silk?*—This is done by enquiries of the few chief importers (who number about four at this port) who have their sales offices at the chief markets for the goods, viz., Conjeevaram, Bangalore, Salem and Kumbakonam. (A silk or silk piecegoods market as such does not exist in Madras). The dealers referred to above and the biggest indenter and importer, viz., Messrs. Mitsui Bussan Kaisha, Ltd., are in daily touch with the prices in the four markets in South India and any information regarding prices is obtained from them and is verifiable from their records.

5. *When was the specific duty first imposed on silk yarn, spun silk and warps?*—Silk yarn and warps.—This was imposed by the Indian Tariff (Textile Protection) Amendment Act, 1934, and came into effect from the 1st May, 1934.

Spun silk.—This was imposed in 1936 (effective from the 1st May, 1936) by the Indian Tariff (Amendment) Act, 1936.

6. *How are the different classes of silk grouped for the purpose of fixing tariff values?*—In view of criticism levelled by the previous Tariff Board against the then classifications of silk for purposes of tariff valuation (vide paragraphs 145 and 146 of the Report of the Indian Tariff Board, pages 124 and 125), they were recast, the new classifications being made to accord with the Board's views that they should be based on the process of manufacture and relative uniformity of Indian market value rather than on colour and port of shipment. The present heads under Item 46 of the Indian Customs Tariff represent the evolution and culmination of this change.

7. *According to the statistics of value attached to the accounts of sea-borne trade, the imports of raw silk into India show a sudden rise in value per lb. beginning in January, 1937 and ending in February, 1938 when there was a sudden drop. Can you account for this? Is it due to a temporary change of price or to a temporary switch over to an article of better quality?*—In 1937 the normal upward trend in prices was given an unusual impetus consequent on three causes, viz.:—

- (1) America and to some extent the Continent were taking regular and in some cases increased supplies from Japan;
- (2) it appears to have been realised and expected from market conditions at the time that there would be a definite and appreciable increase in the tariff value to be fixed for 1938; and
- (3) the expected influence on the price factor of the Sino-Japanese War which at the time was beginning to be regarded as an undoubtedly prolonged conflict.

In consequence importers were willing to speculate in the direction of obtaining and holding larger stocks (i) against subsequent rise in prices and anticipated high profits and (ii) to evade higher freight and shortage of tonnage which were bound to come later.

The fall in 1938 referred to is attributable mainly to a violent reaction from the position described above. Large stocks and a dull market here resulted in a considerable fall in prices which was augmented by (i) a drop in imports into America leaving Japan with large "distressed" stocks, for which a market had to be found somewhere and at any cost, and (ii) the arrival of cheap Chinese raw silk assisted by a depreciated currency and (iii) the sympathetic drop in price of the indigenous (Kashmir) product.

8. *Changes in tariff on silk, artificial silk and silk goods since 1st April, 1934.*—A tabular statement* giving the required information is enclosed.

9. *Whether there is any import duty on seed cocoons and, if so, whether they are classified for tariff purposes under the same head as Cocoons.*—Seed cocoons have not been imported here. They would be assessed at 25 per cent. *ad valorem* plus 14 annas per lb. under Item 46 of the Indian Customs Tariff as silk cocoons.

10. *Whether hand-reeled Japanese silk is assessed to duty under the tariff valued head "Japanese Filatures" and if not under what other head.*—Hand-reeled Japanese silk is not considered to be covered by the description Japanese filatures and so is not assessed to duty on the tariff value for "Japanese filatures". It is assessed *ad valorem* on its invoice value.

11. *The proportion in which ray silks of 18/15 and 20/22 deniers are being imported in Bombay.*—This point can be answered only by Bombay.

12. *Whether it is administratively feasible and convenient to levy ad valorem duty on raw silk on the basis of invoice values instead of tariff value as at present.*—There are strong objections to the assessment of duty on the basis of invoice values, one of the principal being that the invoices are not to be relied upon to furnish the correct real value. It is true that goods included in a tariff-valued category pay less/more than if assessed on the real value when the latter is above/below the tariff value, but this is not a considerable drawback when the range of variation is small and is more than counterbalanced by the advantages of the tariff value system.

(18) *Letter No. 818/38, dated the 13th September, 1938, from the Collector of Customs, Bombay, to the Secretary, Tariff Board.*

I have the honour to refer to the following points which were raised in the course of my oral evidence on the 1st instant and in respect of which I was requested to furnish further information.

1. *Imports of Japanese raw silk into India via China.*—Further investigations indicate that hitherto no Japanese raw silk appears to have been imported from China and passed off at the tariff value for Chinese yarn. It is true that the superior quality of Japanese filatures would offer inducement for such an attempt, but the packing of the article and the labels of origin on the bundle provide two effective criteria for differentiating between the two qualities. Chinese raw silk is packed in comparatively larger and heavier bundles. I have seen representative bundles of the two qualities and find that an attempt of the nature referred to can be successful only if the Japanese sender were to copy the Chinese mode of packing, affix false labels, ship the consignment first to China and arrange for its re-shipment from China to India. But in such case the consumer will buy it only at the lower price prevailing for the Chinese yarn (which it is alleged to be) and the saving in duty is, therefore, very likely to be offset by the additional freight and shipping charges and by the lower price

offered for it. It is unlikely, therefore, that such an attempt would be made as it would not be a paying proposition.

2. *The descriptions of raw silk falling under the tariff valued head "All sorts" in item 46, Indian Customs Tariff.*—This is a residuary head covering all kinds of imported Chinese raw silk not enumerated in the heads above that head. At present, the only two qualities assessable under the head "All sorts" are "Re-reelod" and "Filature" silks.

3. *The scope of the description "Paj, all sorts" in the foot-note † to the Tariff valued head (c) Other sorts under item 48, Indian Customs Tariff.*—This description includes Paj from all countries including China and Japan.

4. *The qualities of silk yarn imported from Italy and the item in the Indian Customs Tariff under which they are assessable.*—Silk yarns imported from Italy are understood to be yarns spun from waste silk. They are assessable under item No. 47 of the Indian Customs Tariff at 25 per cent. *ad valorem* plus 14 annas per lb.

5. *Further consideration of the Kashmir Scheme outlined in the accompaniment to the Board's letter No. 859, dated the 19th August, 1938.*—I understood from the President of the Board that the proposal was to be considered only with reference to raw silk and was as follows. The Board would fix the "fair selling value" of Indian raw silk. The Customs Department would verify the description and quality of the raw silk imported and, after scrutinising the invoice, would charge duty at the *ad valorem* rate on the value stated in the invoice. It would also charge a specific duty which would be equivalent to the difference between the fixed "fair selling value" and the invoice price plus the *ad valorem* duty charged, so as to bring up the total cum duty value of the particular quality of raw silk imported to the level of the "fair selling value".

I have considered the scheme carefully and am of the opinion that there are serious practical objections to it:—

(a) So far as this port is concerned, the proposal is based on an incorrect premise *viz.* that the *ad valorem* duty is or can be charged on the invoice value or landed cost under clause (b) of section 30, Sea Customs Act. As a matter of fact, almost every quality of raw silk imported at present is regularly bought and sold in the local market in wholesale quantities and at wholesale rates. For every one of them, therefore, a "real value" such as is contemplated in clause (a) of section 30 of the Sea Customs Act (VIII of 1878) is ascertainable. It will be observed that, under that section, if a wholesale cash price is ascertainable for any goods, such goods must be assessed on the basis of such price and can not be dealt with under clause (b) of the section, *i.e.*, the *ad valorem* duty cannot be assessed on "invoice value". For several years, all qualities of raw silk have been assessed on tariff values which are based on the averages of the wholesale cash prices less duty for such qualities. Even if the present system of assessment of raw silk on tariff valuations is discarded, the law as it stands at present makes it obligatory that importations of raw silk should be assessed on the wholesale market value under clause (a) of section 30 of the Sea Customs Act in view of the fact that wholesale cash prices for all qualities of raw silk imported are definitely ascertainable at this port.

(b) The existing rules require that for every tariff valued article the importer should make a declaration in the bill of entry filed by him of the real value of that article, as defined in section 30 (a) of the Sea Customs Act, *i.e.*, the wholesale market value of the article less duty. The assessing officer verifies

that declaration before he completes the assessment. As sales in the market are not necessarily based on the invoice value of the article, and as very often they may not have any relation to it, the declaration of market value is verified by the assessing officer by means of independent personal enquiries in the trade. Under the present system, therefore, the question of his verification of the invoice value of the consignment cannot and does not arise. The proposed scheme involves assessment of invoice value and consequently the verification of the statement of value in invoices would assume primary importance and would become necessary. There are, however, certain practical difficulties in this respect which are dealt with below as additional objections to the proposal.

- (c) The Board is already aware that the import trade of raw silk is confined to a few (not more than six) large importers who have practically the monopoly of it and who have branches in China and Japan for buying and consigning silk on account of their Bombay offices. Transactions are not always negotiated through Banks, with the result that independent and satisfactory evidence is not at present available, nor is it likely to be available in future, for the purpose of verifying whether the invoice prices represent the correct competitive prices in the export market of the supplying country or whether the invoice is merely a *pro forma* document showing a hypothetical value or an adjustment of accounts as between the branch and the Bombay office. According to the proposed scheme, the specific duty equivalent to the difference between the fair selling value on the one hand and the invoice price plus the *ad valorem* duty on the other would represent the protection to the Indian producer against the influx of foreign raw silk. In view of the circumstances stated which render it difficult to obtain independent evidence for the verification of invoice values, it would be left in the final event, to the importer himself of foreign silk to adjust and determine that protection and on this principal ground the scheme fails of its purpose.
- (d) It is not unlikely that importers would inflate invoice values, even at the risk of paying more duty on such value at the *ad valorem* rate, with the object of reducing the difference between the fixed fair selling price and the invoice value cum duty. What is lost by way of additional *ad valorem* duty may be more than made up by evading the "differential duty". It will, therefore, be inexpedient to court the risk of fall in revenue incidental to the change of basis of assessment from 30 (a) to 30 (b) for the sake of a proposal of which the object could be easily defeated by manipulation by the importers.
- (e) It will probably be difficult to devise a suitable formula by which assessment on invoice value could be made legal, without amending the Sea Customs Act. All that could be done by an amendment of the Tariff Schedule is to prescribe a specific duty, as contemplated in the Kashmir proposal, in addition to the *ad valorem* rate. The value on which the latter rate is to be applied will have to be left to be determined by the Customs Collector in accordance with the provisions of Section 30, Sea Customs Act. In effect, therefore, the specific duty will be the equivalent of the difference between the market value and the fair selling price. For the purpose of calculating the assessable value, the duties will have to be deducted from the gross market values. As the specific duty is not a fixed figure, but a varying one, dependent on the market value

itself, the assessing officer will not know what to deduct. The scheme will, therefore, prove unworkable, if it is based on market values, and illegal if it is based on invoice values.

- (f) As regards the observations in the Kashmir note, I may state that, though a number of other articles from Japan are being assessed on invoice value without any difficulty, it is done under circumstances which are dissimilar. In the first place, assessment under section 30 (b) is resorted to only when a "real value" under section 30 (a) is not ascertainable. In the second place, invoices are not always made out by a branch of the importer and the number of importers is comparatively much larger. Independent evidence such as for example Bank draft, contract note, indents, etc., is always available and usually inspected for the purpose of testing whether or not the invoice price represents the correct cost of delivery. This cannot be said to be the case in respect of the imports of raw silk.

6. *Letter from the President, Silk Merchants' Association, Bombay, dated the 20th July, 1938, enclosed with Board's letter, dated the 30th August, 1938.*—Enquiries very recently instituted go to show that the influx of smuggled goods into the Bombay market has now considerably declined. The strict measures recently adopted by Government have reduced the extent of the smuggling, though it is believed that the Baluchistan border still offers some scope for this illicit trade. It is estimated that the total quantity of smuggled goods in the Bombay market cannot exceed 10 per cent. of the legitimate business done in the trade. These enquiries also show that smuggling is neither the only nor the main cause of the depression in the silk trade. It may be said to have affected the price level to some extent, but there are other causes for the depression, viz. :—

- (a) growing reluctance to buy foreign cloth and generally reduced purchasing power;
- (b) over-trading, i.e., buying in excess of the demand;
- (c) credit facilities granted by the Bank having the effect of inducing over-trading; and
- (d) increasing popularity (on account of cheapness) and consequent competition of artificial silk.

It is reported that two big firms in Bombay failed recently as a consequence of over-trading and that the Banks have now adopted a policy of restricting credit. Dealers have also decided to restrict buying. As a result of this, there are indications that the trade is showing signs of some improvements.

57. Director General of Commercial Intelligence and Statistics, Calcutta.

- (1) *Demi-official letter No. 503, dated the 13th May, 1938, from N. J. Roughton, Esq., C.I.E., I.C.S., Secretary, Tariff Board, to Dr. John Matthai, C.I.E., Director General of Commercial Intelligence and Statistics, Calcutta.*

You are probably aware that the Indian Tariff Board have been asked to investigate the question of granting protection to the Sericultural Industry. I would feel most grateful if you could let us know the basis on which your Department calculates the tariff values of the various articles included in the Tariff Schedule. Please also let me know whether any change has been proposed with regard to the grouping since the Board

reported in 1933 with special reference to paragraphs 145 to 147 of the Tariff Board Report on Sericulture (1933). Under what item is staple fibre classified in the annual report of sea-borne trade? I should be grateful for an answer as soon as possible.

(2) *Letter No. 546, dated the 24th May, 1938, from the Tariff Board, to the Director General of Commercial Intelligence and Statistics, Calcutta.*

I am directed to request you to be good enough to supply us with a Table showing the Index Numbers of wholesale prices since the year 1933-34 of rice, ragi, javari and raw silk similar to the Table given on page 76 of the Report of the Indian Tariff Board on the grant of protection to the Sericultural Industry which was published in the year 1933.

(3) *D. O. No. 8291-C.I.E., dated 25th May, 1938, from C. T. N. Menon, Esq., B.A., Deputy Director of Commercial Intelligence, Calcutta, to N. J. Roughton, Esq., C.I.E., I.C.S., Secretary, Tariff Board.*

Will you kindly refer to your D. O. letter No. 503 of the 13th May, 1938, regarding basis of tariff valuation, tariff classification of raw silk, etc.? As Dr. Matthai is away at Simla I take the liberty to reply to your letter and enclose a note on the different points raised in it. I hope this will meet your requirements.

Note on the basis and procedure of Tariff Valuation, Classification of raw silk by tariff valuation purposes and classification of staple fibre for statistical purposes.

1. There has been no substantial change in the basis and procedure of tariff valuation from that outlined in the first half of paragraph 146 of the Report of the Indian Tariff Board on the Sericultural Industry (1933).

2. In order to meet the criticisms on the classification for tariff valuation purposes of raw silk made by the Tariff Board in their report of 1933, the entire classification of raw silk as it then existed was revised according to the description known to the trade and on the basis of the process of manufacture and the relative uniformity of Indian market value of the different grades of raw silk. This revised classification which came into force on 1st January, 1935, was as follows:—

T. V. per lb.

Silk, raw—

Chinese—

Waste products, including Duppon

all kinds

Hand-reeled

All other sorts

Subsequently however, it was found desirable to take out "Duppon all kinds" from the combined sub-head "Waste products including Duppon all kinds" as the disparity in values of Duppon and other waste products is appreciable and Duppon is easily distinguishable from other waste products. A tariff value had also to be fixed for "Japanese filatures" mainly on the ground that their assessment on the market value gave them an unfair advantage over Chinese silk filatures, because of the difference in the method of assessment. These changes were given effect to on 1st

January, 1936, and since then and till 31st December, 1937, the classification of raw silk for tariff valuation purposes has been as below:—

Silk, raw—	Per lb.
Chinese—	
Waste products	
Duppon, all kinds	
Hand-reeled	
All other sorts	
Japanese filatures	

With effect from 1st January, 1938, however, the sub-head "Hand-reeled" was revised to "Hand-reeled (excluding re-reeled)" to eliminate the possibility of high-priced hand re-reeled silks being assessed on the low tariff value fixed for hand-reeled silk; the hand re-reeled silks are therefore now assessable under "All other sorts". The existing classification is therefore as follows:—

Silk, raw—	Per lb.
Chinese—	
Waste products	
Duppon, all kinds	
Hand-reeled (excluding re-reeled)	
All other sorts	
Japanese filatures	

3. "Staple fibre and yarn" are separately recorded in the foreign seaborne import trade returns of British India with effect from April, 1937. Prior to that date "Staple fibre" was included under "Textiles—other textiles—raw" and "Yarns" and other products made therefrom under the relevant sub-heads under "Textiles—artificial silk".

(4) Letter No. 9043, dated the 7th June, 1938, from the Director General of Commercial Intelligence and Statistics, to the Secretary, Tariff Board.

INDEX NUMBERS OF WHOLESALE PRICES OF CERTAIN ARTICLES AT BANGALORE.

With reference to your letter No. 546, dated the 24th May, 1938, on the above subject, I have the honour to enclose a statement showing the index numbers of whole prices of rice, ragi, javari and raw silk at Bangalore since 1933 on a monthly basis as reported to this Department by the Director of Industries and Commerce in Mysore, Bangalore.

Index Numbers of wholesale prices at Bangalore of certain selected articles (1914 price=100).

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1933.												
Rice . .	85	81	81	81	81	78	71	71	70	71	71	67
Ragi . .	79	78	73	67	68	74	76	76	75	74	71	71
Javari . .	63	64	69	75	81	81	81	84	81	77	75	75
Raw Silk . .	62	61	60	56	51	49	50	49	51	50	49	48
1934.												
Rice . .	68	67	66	66	69	76	76	75	89	88	77	75
Ragi . .	74	74	72	64	63	64	75	79	100	131	123	136
Javari . .	75	78	88	88	82	77	77	75	84	98	113	113
Raw Silk . .	47	47	47	47	47	47	47	49	52	52	52	50
1935.												
Rice . .	81	85	86	87	88	87	87	86	80	84	85	84
Ragi . .	134	140	141	143	136	142	143	144	129	131	119	121
Javari . .	111	120	118	107	106	103	103	103	99	94	96	95
Raw Silk . .	50	53	53	53	51	49	49	49	50	55	56	52

- (5) *Letter No. 630, dated the 24th June, 1938, from the Tariff Board, to the Director General of Commercial Intelligence and Statistics, Calcutta.*

I am directed to request you to kindly send statements (with three spare copies) showing the quantity and value of the imports from Japan into Kathiawar ports of—

- (1) artificial silk piecegoods,
- (2) cotton and artificial silk mixture and piecegoods,
- (3) artificial silk yarn, and
- (4) raw silk,

for the last five years.

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- (6) *Letter No. 10409-Q., dated the 30th June, 1938, from the Director General of Commercial Intelligence and Statistics, Calcutta, to the Secretary, Tariff Board.*

IMPORTS OF ARTIFICIAL SILK AND RAW SILK INTO THE KATHIAWAR PORTS FROM JAPAN DURING THE LAST FIVE YEARS.

With reference to your letter No. 630, dated the 24th June, 1938, on the above subject I enclose a statement (with 3 spare copies) showing the imports of raw and artificial silk from Japan during the last five official years, as classified in the trade return.



सत्यमेव जयते

Statement showing the quantity and value of Artificial Silk and raw silk imported into the Kankawar Ports from Japan during the fiscal years 1933-34 to 1937-38.

	1933-34		1934-35		1935-36		1936-37		1937-38	
	Quantity.	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Piecegoods made entirely of Artificial silk . Yds.	3,073,136	5,57,947	2,748,354	4,99,609	876,735	1,07,337	571,215	1,55,931	546,358	1,39,170
Piecegoods of cotton and artificial silk (a) . "	277,205	59,682	859,683	1,70,420	—	—	—	—	—	—
Piecegoods of cotton embroidered or superimposed with artificial silk (a) . . . "	3,964	1,896	2,924	2,236	—	—	—	—	—	—
Goods of artificial silk mixed with other materials (b) . . . "	—	—	—	—	1,480,564	2,40,394	110,535	24,218	223,428	44,637
Artificial silk yarn . lbs.	..	..	..	..	..	..	2,000	1,148	3,878	3,636
Raw silk . . . lbs.	..	..	..	..	..	..	..	..	..	..

(a) Discontinued from April, 1935.

(b) Separately recorded from April, 1935.

- (7) *Letter No. 669, dated the 6th July, 1938, from the Tariff Board, to the Director General of Commercial Intelligence and Statistics, Calcutta.*

I am directed to acknowledge receipt of your letter No. 10409-Q., dated the 30th June, 1938, with thanks on the subject of the imports of artificial silk and raw silk into the Kathiawar ports from Japan during the last five years. I am to request you to be good enough to supply similar figures for real silk goods and mixtures. Also please state whether there are any imports either of artificial or real silk from countries other than Japan.

- (8) *Letter No. 11251-E., dated the 15th July, 1938, from the Director General of Commercial Intelligence and Statistics, to the Secretary, Tariff Board.*

IMPORTS OF SILK AND ARTIFICIAL SILK INTO THE KATHIAWAR PORTS FROM FOREIGN COUNTRIES.

With reference to your letter No. 669, dated the 6th July, 1938, on the above subject, I enclose a statement (with three spare copies) showing the imports of silk and artificial silk under the different descriptions into the Kathiawar ports from foreign countries during the official years 1933-34 to 1937-38, as compiled from the return furnished by the State authorities.



सत्यमेव जयते

Statement showing the imports of silk and artificial silk into the Kashanar ports from foreign countries during the official years 1933-34 to 1937-38.

	Quantity.					Value.				
	1933-34	1934-35	1935-36	1936-37	1937-38	1933-34	1934-35	1935-36	1936-37	1937-38
Silk, raw . . . lb.	..	..	..	..	..	Ra.	Ra.	Ra.	Ra.	Ra.
Silk waste and noils . "	..	..	7,050+	..	..	..	..	..	..	..
Silk yarn—										
From Japan . . "	..	..	..	..	2,208	..	..	..	..	5,740
" Other countries . "	..	2,980	8,760	256	..	..	2,821	9,198	575	..
Total . . "	..	2,980	8,760	256	2,208	..	2,821	9,198	575	5,740
Silk piecegoods—										
Ponjee* . . . Yd.	—	—	66,355	..	5,000	—	—	18,583	..	1,207
Fuji, Boeeki and cord- ed (apun) Silk* . . "	—	—	890,771	13,400	240,578	—	—	4,05,644	5,867	85,672
Crepes and georgettes* . "	—	—	420,290	68,992	20,864	—	—	2,70,001	43,141	12,873
Satins and Tafettes* . . "	—	—	..	6,914	2,500	—	—	..	1,986	1,191
Others* "	—	—	1,348,005	119,709	184,442	—	—	6,86,209	57,771	1,19,029
Total of silk piecegoods "	235,537	1,691,663	2,725,391	209,015	453,384	1,41,496	8,27,554	13,80,437	1,08,565	2,19,972

From United Kingdom	11,182	28,902	7,030	6,264	16,175	5,352	8,473	6,650	1,723	10,076
" China	81,448	406,377	441,917	52,650	250,225	42,770	1,96,909	1,84,703	12,166	86,486
" Japan	140,789	1,252,059	2,274,405	149,951	185,677	90,539	6,20,832	11,81,536	94,565	1,20,766
" Other countries	2,118	4,325	2,039	150	1,307	2,835	1,540	7,548	111	2,644
Total	235,537	1,691,663	2,725,331	200,015	453,384	1,41,406	8,27,554	13,80,437	1,08,565	2,19,972
Goods of silk mixed with other materials—										
From Japan	44,845	102,115	..	2,044	..	19,858	40,815	..	1,214	..
" Other countries	43,441	371,137	..	3,500	..	19,565	64,718	..	680	..
Total	88,286	473,252	..	5,544	..	39,423	1,05,533	..	1,894	..
Other sorts of silk manu- factures—										
From Japan	..	3,069	9,622	267	..	..	6,292	71,045	827	..
" Other countries	112	127	2,577	..	..	258	543	15,114	..	..
Total	112	3,196	12,199	267	..	258	6,835	86,159	827	..
Artificial Silk yarn—										
From Japan	..	..	..	2,000	3,878	..	..	..	1,148	3,636
" Other countries	..	..	..	..	..	..	..	..	..	..
Total	..	..	..	2,000	3,878	..	..	..	1,148	3,636

* Separately recorded from April, 1935.

† From the United Kingdom.

Statement showing the imports of silk and artificial silk into the Kathiawar ports from foreign countries during the official years 1933-34 to 1937-38—contd.

	Quantity.						Value.					
	1933-34	1934-35	1935-36	1936-37	1937-38		1933-34	1934-35	1935-36	1936-37	1937-38	
Piecegoods made entirely of Artificial Silk—												
From United Kingdom Yd.	18,130	21,835	23,318	13,388	10,473		Rs. 3,920	6,092	7,931	3,673	2,631	
" Japan . . . "	3,073,136	2,748,354	876,735	571,215	546,358		5,57,147	4,99,609	1,07,337	1,55,131	1,39,170	
" Other countries "	9,441	16,538	31,579	7,488	29,522		3,063	5,125	7,615	2,963	8,265	
Total . . . "	3,100,707	2,786,727	931,632	602,091	586,353		5,64,190	5,10,826	1,22,883	1,62,547	1,50,566	
Piecegoods of cotton and Artificial Silk—(a)												
From United Kingdom "	16,062	74,027	..	..	..		4,089	24,412	..	..	..
" Switzerland . . "	800	144,329	..	..	..		270	57,324	..	..	..
" Japan . . . "	277,205	859,683	..	..	..		59,682	1,70,420	..	..	..
" Other countries "	3,477	121,869	..	..	..		3,979	14,518	..	..	..
Total . . . "	297,544	1,199,908	..	..	..		68,020	2,66,834	..	..	..

(9) *Letter No. 729, dated the 20th July, 1938, from the Tariff Board, to the Director General of Commercial Intelligence and Statistics, Calcutta.*

I am directed to request that the Board may kindly be furnished as soon as possible with statements of imports from and exports to Burma during the year 1937-38 (i.e., after Burma's separation) of the following articles:—

- (1) Raw silk,
- (2) Silk yarn or twisted silk,
- (3) Noils,
- (4) Spun silk,
- (5) Nitto yarn,
- (6) Artificial silk yarn and twisted silk rayon,
- (7) Pure silk goods,
- (8) Artificial silk goods and mixtures,
- (9) Staple fibre and coloured staple fibre.

(10) *Letter No. 771, dated the 28th July, 1938, from the Tariff Board, to the Director General of Commercial Intelligence and Statistics, Calcutta.*

I am directed to say that in connection with their present enquiry into the question of continuance of protection to the Sericultural Industry in India the Board would be glad to be furnished with the following information as early as possible:—

- (1) The present market prices in London of Japanese, Italian and Indian raw silks together with the monthly average prices of these silks during the last 3 years.
- (2) Imports of these silks into the United Kingdom during the last 3 years and the quantities retained for home consumption.

(11) *Letter No. 11956-Q, dated the 30th July, 1938, from the Director General of Commercial Intelligence and Statistics, Calcutta, to the Secretary, Tariff Board.*

IMPORTS AND EXPORTS OF SILK, ETC., FROM AND TO BURMA.

With reference to your letter No. 729, dated the 20th July, 1938, on the above subject, I have the honour to enclose two statements showing the information as far as available in this Department.

STATEMENT I.

Imports from Burma into British India during the year 1937-38.

Articles.	Lbs.	Rs.
1. Silk, raw and cocoons—		
(iii) Hand-reeled . . . . .	...	...
(i) Cocoons	600	4,000
(ii) Waste products including duppon	1,192	2,600
(iv) Other sorts	91,745	2,66,297
Total of silk, raw and cocoons	93,537	2,72,897

STATEMENT I—contd.

Imports from Burma into British India during the year 1937-38—contd.

Articles.	Lbs.	Rs.
2. Silk yarn—		
(i) Made from silk waste . . . . .	...	...
(ii) Made from noils . . . . .	...	...
(iii) Others	12,941	46,905
Total of silk yarn	12,941	46,905
3. Artificial silk yarn	100	162
4. Silk piecegoods—	Yds.	
(a) Ponjee	6,672	669
(b) Fuji, Boseki and Carded (spun silk) . . . . .	...	...
(c) Crepes and Georgettes	735	60
(d) Satins and Tafettas . . . . .	...	...
(e) Others	8,313	1,817
Total of silk piecegoods	15,720	2,546
5. Piecegoods made entirely of artificial silk	77,607	...
6. Hosiery—Socks and Stockings made chiefly of artificial silk	831	1,525
7. Goods of artificial silk mixed with other materials—	Yds.	
(i) Containing 50 per cent. or more cotton	2,695	...
(ii) Containing no cotton or less than 50 per cent. cotton	4,267	...
Total of goods of artificial silk mixed with other materials	6,962	...
8. Staple fibre—		
Yarn—		
(i) Made of staple fibre only . . . . .	...	...
(ii) Made of staple fibre mixed with other textile fibres . . . . .	...	...
Total of staple fibre and yarn . . . . .	...	...

STATEMENT II.

Statement showing the exports of silk, raw and manufactures by sea from British India to Burma during the year 1937-38.

Silk.		Quantity.	Value. Rs.
Silk raw—lbs.	.	7,900	21,150
Silk piecegoods—Yds.	.	33,714	34,784
Goods of silk mixed with other materials—Yds.	.	9,133	6,548
Other sorts—lbs.	.	2,822	9,320

(12) Letter No. 12671, dated the 11th August, 1938, from the Director General of Commercial Intelligence and Statistics, to the Secretary, Tariff Board, Bangalore.

STATISTICS OF RAW SILK.

With reference to your letter No. 771, dated the 28th July, 1938, on the above subject I have the honour to enclose statements showing (a) British wholesale prices of Japanese and Italian silks, raw; (b) the quantity and value of raw silk imported into the United Kingdom from Japan (including Formosa), Italy and British India during 1935, 1936 and 1937 with details of retained imports so far as statistics are available at present. I may add that imports of Indian raw silk into the United Kingdom are insignificant and as such no quotation of its prices are published in the Journals received in this Department.

STATEMENT I.

British Wholesale Prices of Silk, raw.

(Compiled from the "Economist", London.)

	Silk, Japan.		Silk, Italian, raw from Milan.	
	Per lb.		Per lb.	
	s. d.	s. d.	s. d.	s. d.
1935-36—				
End of—				
April . . .	5 9	to 7 3	5 6	to 6 9
May . . .	6 0	„ 7 3	6 0	„ 7 0
June . . .	5 9	„ 6 9	6 9	„ 7 9
July . . .	6 0	„ 7 0	6 9	„ 7 9
August . . .	6 9	„ 7 9	7 6	„ 10 0
September . . .	7 6	„ 9 0	7 6	„ 10 0
October . . .	8 0	„ 10 0	7 6	„ 11 0
November . . .	7 9	„ 9 0	7 6	„ 11 0
December . . .	7 9	„ 9 0	7 6	„ 11 0
January . . .	7 6	„ 8 6	7 6	„ 11 0
February . . .	6 9	„ 7 6	7 6	„ 11 0
March . . .	7 0	„ 8 0	7 6	„ 11 0

STATEMENT I—*contd.**British Wholesale Prices of Silk, raw—contd.*(Compiled from the "Economist", London)—*contd.*

	Silk, Japan.		Silk, Italian, raw from Milan.	
	Per lb.		Per lb.	
	s. d.	s. d.	s. d.	s. d.
1936-37—				
End of—				
April . . .	6 9	to 7 6	7 6	to 11 0
May . . .	6 3	„ 6 9	7 6	„ 11 6
June . . .	6 9	„ 7 6	7 6	„ 11 0
July . . .	7 0	„ 7 9	7 6	„ 11 0
August . . .	6 9	„ 7 6	7 6	„ 11 0
September . . .	7 0	„ 7 9	7 6	„ 11 0
October . . .	7 6	„ 8 6	7 6	„ 11 0
November . . .	8 3	„ 9 6	8 0	„ 9 6
December . . .	8 9	„ 9 9	8 0	„ 9 6
January . . .	8 9	„ 9 9	8 0	„ 9 6
February . . .	8 6	„ 9 6	8 0	„ 9 6
March . . .	9 0	„ 9 9	8 6	„ 10 0
1937-38—				
End of—				
April . . .	8 6	„ 9 3	8 6	„ 10 0
May . . .	8 3	„ 9 0	8 6	„ 10 0
June . . .	8 0	„ 9 0	8 6	„ 10 0
July . . .	8 0	„ 9 0	8 6	„ 10 0
August . . .	7 9	„ 8 9	8 6	„ 10 0
September . . .	7 9	„ 8 9	8 6	„ 10 0
October . . .	7 0	„ 8 0	Nominal	
November . . .	6 6	„ 7 3	8 6	
December . . .	6 6	„ 7 3	8 6	to 7 9
January . . .	6 6	„ 7 3	8 0	„ 7 0
February . . .	6 9	„ 7 6	7 6	„ 6 9
March . . .	6 0	„ 7 0	7 6	„ 6 9
1938-39—				
End of—				
April . . .	6 3	„ 7 3	7 6	„ 6 9
May . . .	6 6	„ 7 3	7 3	„ 6 9
June . . .	6 9	„ 7 6	8 0	„ 7 3

STATEMENT II.

Statement showing the quantity and value of "Raw Silk" imported into and retained in the United Kingdom from Japan including Formosa, Italy and British India during the three calendar years 1935, 1936 and 1937.

From Japan (including Formosa).			From Italy.		From British India.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Silk, raw, knubs and noils—	Lbs.	£	Lbs.	£	Lbs.	£
(a) Silk cocoons and waste of all kinds—						
1935 { Imports	29,709	3,666	120,731	8,664	147,165	7,827
{ Retained Imports	28,688	3,556	119,552	8,546	143,513	7,629
1936 { Imports	136,780	12,432	..	..	135,160	7,906
{ Retained Imports	133,322	12,283	..	..	135,160	7,906
1937 { Imports	(a)	(a)	43,831	8,687	(a)	(a)
{ Retained Imports	(a)	(a)	(a)	(a)	(a)	(a)
(b) Silk raw—						
1935 { Imports	3,549,088	1,182,070	161,578	50,158	..	..
{ Retained Imports	3,536,136	1,177,906	157,549	48,730	..	..
1936 { Imports	3,653,609	1,391,338	38,773	13,901	..	..
{ Retained Imports	3,643,019	1,387,184	38,769	13,899	..	..
1937 { Imports	4,056,691	1,675,044	111,372	53,116	..	..
{ Retained Imports	(a)	(a)	(a)	(a)	..	..

(a) Details not yet available.

58. Forest Research Institute, Dehra Dun.

- (1) *Demi-official letter No. 504, dated the 13th May, 1938, from N. J. Roughton, Esq., C.I.E., I.C.S., Secretary, Tariff Board, to L. Mason, Esq., C.I.E., O.B.E., M.C., I.F.S., President, Forest Research Institute and College, Dehra Dun.*

You are probably aware that the Indian Tariff Board has been asked to investigate the question of granting protection to the Sericultural Industry. The Board understands that your Institute is doing some research work with regard to artificial silk yarn and staple fibre. The Board would be glad to have a detailed note on the subject. Could you kindly make it convenient to send us this information as early as possible?

- (2) *D.O. No. 2742/37-7-31, dated the 14th June, 1938, from L. Mason, Esq., C.I.E., O.B.E., M.C., I.F.S., President, Forest Research Institute, Dehra Dun, to N. J. Roughton, Esq., C.S.I., C.I.E., I.C.S., Secretary, Tariff Board.*

Would you please refer to your D.O. letter No. 504, dated the 13th May, 1938. I am sorry for the delay in replying which is due to my having been away on tour in South India. I attach for your information a very brief note on the work done at the Forest Research Institute on bamboos as a possible source of cellulose for artificial silk. I trust that this will give you the information you require.

I would explain that the Forest Department is very much interested in the possibilities of the production of cellulose from bamboos and grasses and it is the opinion of the Paper Pulp Expert at this Institute that bamboo cellulose may prove the best and cheapest for the purpose in view. The Indian Central Cotton Committee and the Bombay Government have recently set apart funds for investigating the possibilities of utilising cotton wastes and linters for the production of artificial silk. It is, in my opinion, a matter for the serious consideration of Government as to whether funds should not similarly be made available for the investigation into the preparation of cellulose from bamboos and grass. If, as we believe, celluloses can be prepared from bamboos and grass more cheaply than from cotton wastes and linters, it should be more economical to use such for the manufacture of staple fibres and viscose silks, which can be used in admixture with acetate silk from cotton for the production of a variety of artificial silks. The manufacture of viscose silk and staple fibre in India is of such importance that it seems to me that every effort should be made to co-ordinate and control any research work done thereon. Hence it appears most desirable that investigations at Forest Research Institute should be carried out along with and in the closest touch with those on cotton wastes and linters.

Short Note on work done at the Forest Research Institute, Dehra Dun, on bamboo as a possible source of cellulose for artificial silk.

Some experiments were undertaken at the Forest Research Institute, Dehra Dun, about three years back to purify bamboo pulp so as to obtain cellulose which could be used for the production of artificial silk. The chemical composition of the various samples of purified bamboo cellulose, prepared in the laboratory, was as follows:—

Alpha cellulose—92 to 96 per cent.

Copper number—About 1.

Ash content—0.12 to 0.30 per cent.

Cuprammonium viscosity—7 to 9 Centi-poisees.

At that time, it was the intention to obtain a small laboratory pilot plant for the production of artificial silk yarns and staple fibres, in order to find out if the various samples of celluloses prepared in the laboratory were suitable for the purpose and if not, in what directions they needed further purification and improvement. Before anything further was done, however, information was received that the possibilities generally of the artificial silk or staple fibre industry in India were being investigated by the Industrial Research Bureau, and it was decided to discontinue work on artificial silk and staple fibres at the Forest Research Institute until the report of the Industrial Research Bureau, was issued. The purchase of the pilot plant was, therefore, deferred until the investigations of the Industrial Research Bureau were completed, and all experiments on the purification of bamboo pulp were, for the time being, held in abeyance. The Industrial Research Bureau have just recently sent us their interim reports on the investigations carried out by them and the question as to whether bamboo cellulose should be further investigated for the purpose in view is now open for further consideration.

Except for the few experiments mentioned above on the purification of bamboo pulp, no other work has been done at the Forest Research Institute with regard to the production of artificial silk or staple fibre.

- (3) *Demi-official letter No. 627, dated the 24th June, 1938, from N. J. Roughton, Esq., C.S.I., C.I.E., I.C.S., Secretary, Tariff Board, to L. Mason, Esq., C.I.E., O.B.E., M.C., I.F.S., President, Forest Research Institute, Dehra Dun.*

Many thanks for your D. O. No. 2732/37-7-31, dated the 14th June, 1938. The Board will be glad to have copies of the interim reports of the Industrial Research Bureau in connection with the experiments carried out by them for the production of artificial silk or staple fibre.

- (4) *D. O. No. 3554/37-15-36, dated the 27th July, 1938, from L. Mason, Esq., C.I.E., O.B.E., M.C., I.F.S., President, Forest Research Institute, Dehra Dun, to N. J. Roughton, Esq., C.S.I., C.I.E., I.C.S., Secretary, Tariff Board.*

As desired in your D. O. letter No. 627, dated the 24th June, 1938, I send herewith a copy of the interim reports of the Industrial Research Bureau in connection with the experiments carried out by them for the production of artificial silk or staple fibre.

Interim note on the possibility of economic production of artificial silk in India.

In a note on this subject for the Indian Central Cotton Committee drafted in June, 1936, by Sir Bryce Burt the position at that time was briefly described, and the necessity for a comprehensive economic and technical survey was indicated.

At that time it appeared that ordinary rayon and also staple fibre might be produced economically in India by the viscose process from cotton linters, cotton waste and cheap cotton, especially the former, as there is a large potential supply of linters from saw-ginned Punjab-American cotton, which would possibly be obtainable at $1\frac{1}{2}$ to $1\frac{3}{4}$ annas per lb.

It was therefore arranged that the Industrial Research Bureau should undertake the survey and communicate with firms of artificial silk machinery makers in England, in Europe, and in America, and should also obtain the co-operation of the various Indian Trade Commissioners in connection with these enquiries. The services of Dr. Thoria were also loaned to the Bureau from November, 1936 to assist in these investigations.

As a result of the investigations made and enquiries issued, a large amount of detailed information has been collected on the trend of production by the viscose and acetate processes, costs of raw materials, costs of factory plant and equipment, and technical details of the processes of production. Contacts have been established with firms of rayon producing machinery makers in France, America, and Germany, and with the Indian Trade Commissioners in Germany, Italy and Japan. The American Trade Commissioner, Calcutta, and Messrs. Duncan Stratton & Co., Bombay, have also given valuable assistance and information in connection with this work. A brief description of certain of the information collected and which is of special interest is given below.

Comparison of viscose and acetate rayon production.—Viscose artificial silk is entirely different from acetate artificial silk as regards physical and chemical characteristics, the plant required for production, the properties of the finished material in respect to strength and ductility, and dyeing facility.

Viscose silk is essentially regenerated cellulose, and is produced from high-grade chemical wood-pulp containing approximately 87 per cent. of cellulose (with a proportion of cotton cellulose), and various chemicals of which the chief are caustic soda, carbon-disulphide, and sulphuric acid. Certain bleaching and water softening chemicals and materials are also required, as well as a clean pure water supply at the rate of 70 gallons per pound of rayon produced. The production of fine denier filaments down to 1.5 denier (i.e., approximately to high-quality cotton fibre diameter) by the viscose process presents no difficulty and the manufacture also of staple fibre of such small denier is now general practice. The viscose silk also takes dyes used in the case of cotton. The use of viscose silk in conjunction with cotton, therefore, presents no serious difficulties in textile manufacture.

Acetate silk is, however, essentially a chemical compound of cellulose. It requires higher grade cellulose raw material for its production than is suitable for viscose silk, and chemical cotton, which has a comparatively high cellulose content, normally approximating 98 per cent., is used almost entirely. The other principal materials used in its production are acetic acid, acetic anhydride, and acetone and a clean pure water supply at the rate of 1,000 gallons per pound of rayon produced. The considerable quantities of water required for this process should be specially noted, as this will clearly have considerable influence as regards selection of a factory site. The filament has slightly lower strength but higher ductility than the corresponding filament of viscose silk, and it will not take the usual cotton dyes, certain dyeing difficulties therefore arise in connection with its use in conjunction with cotton. Acetate silk also gives rise to the generation of static electricity in the process of weaving, and special precautions are required. Moreover, so far as can at present be ascertained, filaments of the finest denier, e.g., 1.5 denier, are not at present producible economically by the acetate process.

Cellulose.—Up to the present time only two sources of cellulose for artificial silk production have been utilized to any considerable extent in the industrial countries concerned with this industry, namely the spruce tree and cotton, either in the form of waste or linters. In America for example, about 70 per cent. of the raw material used by the rayon producers is wood-pulp and the remaining 30 per cent. is cotton waste and linters.

For the viscose process wood-pulp is used, but for the production of the finer denier filaments either cotton or mixtures of cotton and wood-pulp have been found necessary.

In the case of the acetate process, however, for which material with a very high cellulose content is essential, cotton is used entirely, though experiments are being made with highly purified wood-pulp.

From time to time other materials have been proposed as for example, bagasse, esparto grass, bamboo, etc., but owing to the low cost and ample available supplies of ready-prepared wood-pulp and chemical cotton, none of these alternative materials has succeeded in establishing itself as a regular and tried source of supply for this industry.

In the event of this industry being established in India it may be assumed that, at any rate to begin with, cotton waste and linters (and possibly also very short staple grades of cotton if of low enough price) will form the main sources of supply of cellulose. A brief description of the process by which the raw material, either in the form of cotton or linters, is prepared in the condition required by the rayon factory is therefore given.

Preparation of chemical cotton.—The raw cotton or linters must be clean and free from foreign materials and field trash and in good condition. Thus care must be taken that the linters have been produced from properly stored seed, as otherwise the cellulose content may have been damaged. Laboratory check is therefore necessary and samples of the raw material require to be purified, bleached, and prepared as chemical cotton for analysis and for tests to indicate its suitability, before acceptance.

If the supply is satisfactory the bales are opened and passed through shredding and cleaning plant for the removal of dust and foreign material. It is then well wetted with hot caustic soda solution or hot bisulphite-sulphurous acid solution, and in that state well picked apart so as to ensure intimate contact with the solution. The material is then placed in digesters and "cooked" in the same solution under pressure, the strength of the solution, the pressure, and time of cooking being all closely controlled so as to arrange that, when completed, a standard cuprammonium solution of the cotton shall have a viscosity within a fixed range.

The cotton is then thoroughly washed in pure water and afterwards bleached, these operations being repeated several times under controlled time and temperature conditions and with standard bleaching solution strengths, every precaution being taken to ensure that the cellulose content remains undamaged and undeteriorated. Stainless steel is used to a considerable extent in the washing and bleaching plant owing to its resistance to chlorine compounds, so as to avoid contamination from iron or copper and ensure a clean white cellulose.

A complete analysis is made at this stage, and if satisfactory the cotton is then passed to the drying department, if it is intended to be supplied to the rayon factory in loose form in bales (acetate process), or to the cotton sheeting department if it is to be supplied in sheet form as required for the viscose process.

The laboratory control requires to be such that a complete analysis of the dried chemical cotton in loose form from each batch or "cook" can be supplied to the rayon factory concerned.

For supply in sheet form the cotton, after the washing and bleaching, is passed through a bleuding process in which the material from a number of batches is mixed together so as to give a standard product. The averaged material then passes through beaters and a refining machine to a paper-making machine. The temperature of the rolls must be such as to ensure that the cellulose is not damaged, and means are provided for the control of the moisture content of the finished sheet, this being very important. The sheet is then cut to the size required by the rayon factory concerned and the sheets finally baled.

In America the chemical cotton producing industry has standardised the product and all supplies are made to the following specification:—

Alpha cellulose	98.00 minimum.
Viscosity (cuprammonia)	12-15 seconds.
Soda solubility	3.5 per cent. maximum.
Ash	0.1 per cent. maximum.
Ether extract	0.15 per cent. maximum.
Sulphuric acid insoluble	0.2 per cent. maximum.
Iron (Fe)	0.0035 per cent. maximum.
Copper No. (Marqueral)	0.25 maximum.
Thickness of sheet	0.36 inch to 0.40 inch.

It will be evident from the above description that the production of the cotton in the form and condition necessary for the rayon industry is an elaborate and somewhat costly procedure. A plant to produce say 1½ tons of chemical cotton per day, namely of suitable size to supply a rayon factory producing 1 ton of rayon per day, would not be sufficiently large to be economical.

Messrs. Duncan Stratton & Co., Bombay, who have carefully investigated this matter, estimate that the economical cost of production of chemical cotton, excluding the cost of the raw cotton or linters, would be 1 anna 3 pies per lb. of cellulose. Allowing 1 anna per lb. as the price payable for the raw cotton or linters, delivered at the pulp factory, the price of the chemical cotton at the rayon factory could therefore not be less than 2½ annas. The question however, requires further investigation.

The Viscose Process.

Details of raw materials.—As has been already mentioned above, the raw materials required for the production of rayon by the viscose process include cellulose, caustic soda, carbon bisulphide, sulphuric acid, and also various chemicals and materials in comparatively small quantities for desulphuring, bleaching, water purification and filtration.

The prices of the main items above, in India, are as follows:—

	Per lb.
	As.
Cotton cellulose	2.5
Caustic soda	1.3
Carbon bisulphide	2.0 (estimated).
Sulphuric acid	0.6 (I. S. D. contract).

The price of the chemicals is, in each case, higher than the price in America or England and presumably also in Japan. Caustic soda requires to be imported as it is not made in India, though it is possible that it will be shortly. Sulphur requires to be imported for the manufacture of carbon bisulphide and sulphuric acid as none is available in India, in this connection it is of interest to note that Japan has considerable deposits of this material and is an exporter of it to India.

It may also be mentioned that carbon bisulphide is a highly volatile and inflammable liquid which boils at 46° C. It is not at present manufactured or used in India, moreover the danger of its transport in India would be so considerable as to render its cost prohibitive, unless it is produced actually at the rayon factory, where suitable precautions during manufacture and use would require to be taken by means of refrigeration and strict temperature control.

Details of factory processes.—Viscose rayon manufacture starts with a cellulose of 88 to 98 per cent.—cellulose content, (depending upon the fineness of filament desired to be produced) and this is transformed chemically into pure regenerated cellulose by removal of all impurities and change of chemical and physical form.

The raw material, in sheet form, is first brought to standard moisture content in a suitably equipped drying room, and then placed in a soaking tank equipped with a horizontal hydraulic press, where it is acted upon by dilute caustic soda solution of approximately 18 per cent. strength and turned into sodium cellulose. The function of the hydraulic press is to compress the transformed material, which is still in sheet form, and thereby remove the greater part of the solution remaining in the material. The dirty caustic liquor from the soaking press is drained off to dialysers, where approximately 90 per cent. of the remaining caustic soda, or 22.5 per cent. of the original amount, can be recovered by a comparatively simple osmotic process.

The cellulose pulp is next shredded into small particles or "crumbs" in water-jacketed shredders provided with revolving blades, the temperature of the contents being maintained at 18°-20° C. by means of the water jacket during this operation, which takes about 2 hours.

The crumbs are then discharged into steel cans provided with lids, and the cans are transported to a temperature-controlled insulated ageing room, where they remain for from 2 to 3 days at temperature of 25° C.

In the fifth operation, the crumbs are converted into cellulose-xanthate by treating them with carbon-bisulphide for 2-3 hours under exact temperature control, in a form of water-jacketed rotating churn called a xanthating drum arranged to be completely air-tight; a batch of 750 lbs. of crumbs requires about 70-80 lbs. of carbon bisulphide, which is introduced through one of the trunnions on which the churn rotates. During this operation the batch gradually changes colour and a window is provided on the side of the churn so that this may be kept under observation, as the colour at any moment is an indication of the stage which the reaction has reached. On account of the dangerous characteristics of carbon-bisulphide, special cold storage and handling facilities require to be provided for this substance.

The length of time and temperature of the crumb ageing operation and of the xanthating operation are very important, and one the time, temperature schedules for the factory have been determined no variation from these is permitted. The necessity of accurate temperature control throughout the factory is therefore evident.

The next operation is the making of viscose by dissolving the cellulose xanthate in dilute caustic soda solution of fixed strength in definite proportions. This operation is also carried out in an enclosed water-jacketed mixer provided with rotating stirring and shredding blades, and takes from 4 to 6 hours with the temperature maintained at 15° C. The xanthate gradually dissolves and the product is viscose, containing the original cellulose in a form which rayon can be spun. A small quantity of sodium sulphite is usually added to the viscose at this stage to prevent generation of excess hydrogen sulphide gas during the spinning operation.

As the viscose is liable to contain undissolved particles of cellulose and foreign matter which would block the fine orifices of the spinning jets, the next operation is filtration of the viscose, which is then led away to blending tanks for blending and subsequently to ripening tanks for ageing prior to use. The ripening tanks are installed in thermal insulated rooms and the viscose maintained at a fixed temperature until tests indicate that it is ready for spinning. During ripening and just before the viscose is ready, further filtration and then the de-aeration of the viscose to remove all air-bubbles prior to spinning is carried out.

Continuous yarn spinning.—Up to this point the same plant is required, whether the viscose is intended for the production of continuous filament rayon or of staple fibre, as the latter is, in fact, continuous filament cut

into short pieces of whatever fibre length is needed. The spinning machine details and subsequent operating for the production of continuous thread differ, however, from those for the production of staple fibre, though the principle of production of the filament is the same in both cases.

In principle the spinning of a filament consists in the pumping of the ripened viscose through a fine orifice immersed in a hardening solution containing 8-10 per cent. sulphuric acid, 14-21 per cent. sodium sulphate, about 1 per cent. zinc sulphate, and 5-10 per cent. glucose, the solution being maintained at constant temperature and strength. The thread of viscose emerging from the orifice is solidified by the solution and turned into a fine filament which is then capable of being handled and drawn out of the solution for the subsequent operations.

In practice the spinning machine consists of a long frame which carries a lead-lined trough for the hardening solution which is maintained at constant temperature and strength and under constant circulation. Immersed in the solution and projecting upwards are mounted about 100 spinnerettes or nozzles, each of which is provided with a large number of small orifices, and each nozzle being fed by a small pump designed to deliver the viscose with great accuracy as regards steadiness of pressure and quantity of viscose per minute. The number of orifices in each nozzle is the same as the number of individual filaments required in the ultimate yarn, and may therefore vary from 14 to 200 in the case of continuous filament yarn. The yarn comprising all the filaments from one nozzle is brought up out of the solution trough and carried round guide wheels and through a guide funnel into the pot of a small high-speed vertical spindle centrifuge, which not only coils down the yarn into a neat cake but also provides the "draw" necessary to draw off the viscose threads from the orifices and the solidified filaments from the solution trough, and further, gives the necessary twist to form the yarn, of the order of $4\frac{1}{2}$ turns per inch of yarn.

The pump, spinnerette, and centrifuge therefore form one spinning unit.

When the centrifuge pot is fully charged, which takes about 2 hours, it is stopped and the cake of yarn removed, the cake at this stage containing a large proportion of spinning bath liquor.

The subsequent operations comprise reeling into skeins generally direct from the cake, and then desulphurizing (in * alkali sulphate solution), washing, drying, bleaching, and finally drying and packing.

Spinning for staple fibre production.—Staple fibre produced from yarn spun by machines spinning ordinary denier yarns would be prohibitive in price. For the production of yarn for staple fibre special spinning machines have therefore been developed, the chief feature of which is that the spinnerettes or nozzles each contain 1,000 or more orifices, so that the yarn contains correspondingly large number of filaments. Thus for 1.5 denier filaments, nozzle with 1,000 holes will spin 1,500 denier yarn.

The yarn from each nozzle are brought together to form a tow comparable with a small rope in size, which, from a 100 nozzle machine (each nozzle containing 1,000 holes and spinning 1.5 denier filaments), would contain 100,000 filaments and be 150,000 denier in size.

Wet and dry systems.—There are two systems in use for processing this tow, the so-called wet and dry systems. In the wet system the tow from the spinning machine is run direct to the cutting machine, which can be set to cut any desired length of fibre. The fibres are then desulphidized, washed, bleached, finished, dried, opened, and conditioned.

In the dry system, the tow is run continuously from the spinning machine through the de-sulphiding, washing, bleaching, finishing, and drying operations before being cut to length in a cutting machine.

* e.e. Sodium sulphide.

In both systems the fibres are finally bales like cotton, and it will be clear from the above description that the spinning for staple fibre is carried out on a much larger scale than is usual in the production of continuous yarn of small denier.

Denier.—Staple fibre can be produced of any required filament size and staple length, but 1·5, 3, and 5·5 denier filament sizes have become usual standard sizes. The 1·5 denier size corresponds to the finer cotton fibre, while the 3 denier size corresponds with the coarser cottons and the 5·5 denier to wool and worsted.

Imports, Factory Estimates, and Costs of Production.

Price of imported yarn.—India is a large importer of artificial silk both of yarn and finished fabric. In 1935-36, 15 million pounds of yarn and 75 million square yards of fabrics were imported. The average price of the yarn was 9 annas per lb. c.i.f. and two-thirds of the total imports was bought from Japan at an average price of 8·5 annas per lb. c.i.f.

The present price of 150 denier "A" quality Japanese yarn, landed at Bombay, is 13 annas per lb. In this connection it should be noted that the imported rayon yarn is almost exclusively 150 denier and above, and of 4·5 filament denier, there being very little demand for finer denier yarns.

The present Bombay prices of 1·5 (denier) and 3 denier staple fibre are 8 annas 10 pies and 11 annas per lb. respectively.

The denier of a yarn has a considerable bearing on its market price as is shown by the following United States of America prices for 40 filament yarns:—

Year.	Month.	100 denier.	Price in Cents. 150 denier.
1934	April	85	65
1935	April	74	55
1936	June	79	60
1937	April	82	63

The ratio of the average price of the 100 denier yarn to that of the 150 denier yarn from the above figures is 80 to 61, and may be taken as roughly the ratio of the costs of production of the two yarns. This matter will be referred to again below.

Comparative cost of raw materials (Viscose process).—The present prices of the principal materials in India which are generally used for the production of viscose rayon, and also the prices of the same materials in England and America, are as follows:—

Material.	England. As. P.	America. As. P.	India. As. P.
Chemical wood-pulp	1 5	1 4	1 10 (including duty)
Caustic soda	1 2 (99%)	1 2 (76%)	1 3 (99%)
Carbon bisulphide	2 11	2 2	2 0 (estimated)
Sulphuric acid	0 5	0 3·6 (I. S. D. contract)	0 6

Enquiries have been made for the prices of these materials in Japan, but the information has not yet been received. In the estimating below

it will be assumed that chemical cotton from linters will be obtainable in India at not less than 1 anna 10 pies, i.e., 1.84 annas, per pound.

Factory estimates.—As a result of the enquiries issued, two comparable estimates have so far been received, in each case for the factory plant for the production of a ton of rayon per day by the viscose process. These have been received from—

- (i) Messrs. Ateliers Mecaniques de Courbevoie, Courbevoie, France.
- (ii) The Chemical Construction Corporation, New York, United States of America.

The estimates are on the basis of prices f.o.b. port of shipment, and adjustment of the prices given for the plant and machinery has been made to provide for the cost of insurance, freight, customs, and transport charges.

After making these adjustments, the estimated costs of a factory for the production of 1 ton of rayon per day of 24 hours, including buildings and erection, but excluding land, is shown to be:—

- (i) Rs. 12,25,000.
- (ii) Rs. 16,70,000.

The scheme and estimate of Messrs. Ateliers Mecaniques de Courbevoie are fully detailed and carefully prepared, and no reason is seen to reject it. It is therefore taken as the basis for subsequent estimating.

Assuming the cost of land for the factory site to be Rs. 1,75,000 then the total cost of plant, buildings, and land will be Rs. 14 lakhs.

Cost of production per lb. of rayon yarn.—The estimate provided by Messrs. Ateliers Mecaniques de Courbevoie also detailed the management and labour staff which would be required to run their plant. This information has been modified to suit Indian conditions and the following production costs based thereon:—

	Rs.
Management—	
1 Manager at Rs. 1,250 per month . . .	1,250
1 Chief Engineer at Rs. 750 per month . . .	750
1 Chief Chemist at Rs. 750 per month . . .	750
6 Chemists at Rs. 175 per month . . .	1,050
1 Cashier at Rs. 300 per month . . .	300
1 Senior Clerk at Rs. 100 per month . . .	100
4 Clerks at Rs. 55 per month . . .	220
Dufftri, sweeper, etc., at Rs. 50 per month . . .	50
Total	4,470

2,240 tons of rayon per day = $2,240 \times 30$ lbs. per month = 67,200 lbs. per month.

\therefore management cost = $\frac{4,470 \times 16}{67,200}$ annas per lb. = 1.06 annas per lb.

Labour staff.—Allow for nine foremen (3 per shift), 60 men and 30 women, i.e., approximately 50 per cent. increase on firms' estimated staff requirements:—

	Rs.
9 foremen at Rs. 80 per month . . .	720
60 men at Rs. 45 per month . . .	2,700
30 women at Rs. 25 per month . . .	750
Total	4,170

∴ Labour cost = $\frac{4,170 \times 16}{67,200}$ annas per lb. = say 1.0 anna per lb.

	As.
Raw materials—	
Cellulose (cotton 1.21 lbs. at 1.84 annas per lb.)	2.23
Caustic soda 1.27 lbs. at 1.3 annas per lb.	1.65
Carbon bisulphido 0.38 lbs. at 2.0 annas per lb.	0.76
Sulphuric acid 1.62 lbs. at 0.6 annas per lb.	0.97
Total	5.61
Add 10 per cent. for miscellaneous chemicals	0.56
Water softening and filtering materials, etc.	6.17
Caustic soda is recoverable to the extent of 22.5 per cent., i.e., the corresponding values being 0.37 anna	0.37
	<u>5.8 say.</u>

NOTE.—It will be seen that this figure depends upon the cost of linters and their preparation as cellulose, which cannot be stated definitely at present.

	As.
Steam for processing. —Say 40 lbs. per lb. of rayon at 1 anna per 100 lbs.	0.4
Electric Power. Say 3 K. W. H. per lb. of rayon at 0.35 annas/unit	1.05
Water Supply. —Approximately 150,000 gallons of treated filtered water per ton of rayon will be required. Cost per lb. of rayon will be	0.20
Business Expenses—	
∴ Insurances, packing, cartage, etc.	0.20
Net factory cost per lb. of rayon	<u>9.7</u>

Depreciation of Plant and Buildings.—The value of the plant as installed is Rs. 10 lakhs, and that of the buildings is Rs. 2½ lakhs. If the depreciation on the plant is taken at 10 per cent. and that on the buildings as 2½ per cent., this amounts to a total of Rs. 1,05,575 per annum.

On a rayon output of say 360 tons per annum, this amounts to an on-cost per lb. of rayon of:—2.1 annas. Therefore, without provision for interest on capital, the price obtainable for the factory output would require to be 11.8 annas per lb.

The above estimate of costs compares closely with that given by Messrs. Ateliers Mecaniques de Courbevoie, who estimated the factory cost per kilo. of rayon, i.e., excluding any on-cost for depreciation, at 9.74 francs, which is equivalent to 9.92 annas per pound.

Factors affecting production costs.

Denier.—The Japanese yarn at 13 annas per lb. is of 150 denier, whereas the estimate of Messrs. Ateliers Mecaniques de Courbevoie provided for the production of 100 denier yarn. Now it has been shown on page 7 above that the ratio of prices of 100 denier and 150 denier yarns in the United States of America is 80 to 61. It may reasonably be assumed that this ratio gives some indication of the respective production costs, and it is well known that the cost of production of fine denier yarn is greater than

that of coarser denier yarn. It would therefore appear that the economic cost of production of the 150 denier yarn in India may be appreciably lower than 11-8 annas on this account.

Size of factory.—A unit for the production of 1 ton of rayon per day is regarded as the smallest size for economic production. Units producing 10 tons or more per day are now usual practice, and considerable economies can be effected in these large units as regards lower proportional capital outlay, increased efficiency of recovery of chemicals, and greater economy of operation as regards overhead costs.

Cost of chemical cotton.—In working out the detailed costs above, the price chemical cotton has been arbitrarily taken at 1-84 annas per pound, i.e., the same as that of imported chemical wood-pulp. This question requires thorough investigation, as Messrs. Duncan Stratton & Co. who have gone into this matter, state that 4 lbs. of linters are required to produce 1 lb. of chemical cotton, and that the cost of production is 14 annas per lb. excluding the cost of the linters. In that case the price payable for linters would be considerably less than the prices hitherto suggested. It is recommended that the Indian Central Cotton Committee undertake this investigation.

Technical and labour staff.—The production of artificial silk is a highly technical process requiring rigid control of all operations and of the conditions under which they are performed. The staff provided as the basis for estimating is considered to be adequate, but experience may show that additional supervisory staff would be required, resulting in increased cost of production.

Staple Fibre Production by the Viscose Process.—Sufficient information is not yet available on which to base detailed estimates regarding the technique and economics of production of staple fibre by the viscose process, and this will form the subject of a separate note in due course.

The production of rayon and staple fibre by the acetate process.—Owing to the smaller world production of rayon by this process than by the viscose process, and to the fact that production by this process is in the hands of a comparatively few companies, detailed information regarding this is proving difficult to collect, and numerous enquiries for information and estimates issued by the Bureau are still outstanding.

It is of interest to note that this process is not in use in Japan.

In view of the fact that for this process the use of chemical cotton is universal, and acetic acid, acetic-anhydride, and acetone (producible cheaply from molasses) are the other principal materials required, this process would seem to be particularly suitable for adoption in India, especially if it can be definitely shown that these materials can be produced more cheaply than, or at least as cheaply here as, say, in America. Certain estimates indicating the possibility of this as regards acetic acid and the other molasses derivatives, have been already supplied by the Director, Imperial Institute of Sugar Technology, Cawnpore.

The investigation is proceeding and a note on this subject will also be forwarded when the necessary information has been collected.

It should be noted that in the case of this process, also, the question of the cost of chemical cotton prepared from linters in India is of primary importance. Early steps therefore require to be taken to determine, within reasonable limits, what the price of this material is likely to be, as this has considerable bearing on the cost of production of artificial silk in India, either by the viscose, or by the acetate process.

2nd Interim Note on the possibility of economic production of artificial silk in India.

The Viscose Process Yarn.—Since the preparation of the Interim Note dated the 29th July, 1937, on this subject, two additional detailed estimates for the cost of plant and equipment for a factory to produce artificial

silk yarn at the rate of approximately 1 ton per 24 hours day, by the Viscose process, have been received by the Industrial Research Bureau.

One of those was received through the Indian Government Trade Commissioner, Hamburg, from Messrs. Emil Blaschke, Berlin-Tegel, and the other was obtained through the Indian Government Trade Commissioner Milan, from Messrs. Ing. A. Maurer S. A., Via Eugenio Carpi, Milan.

Offers to submit estimates for complete plants have also been received, through the respective Indian Government Trade Commissioners, from Messrs. Oscar Kohoru & Co., G.M.b.H., Chemnitz, Germany, who are represented in India by Messrs. Duncan Stratton & Co., Bombay, Messrs. Officine Meccaniche Giovanni Cerutti, Corso Valentino, Monferrato, Italy and Messrs. Construzioni Meccaniche de Enzo Pensotti, Busto Arisizio, Italy. Information has also been obtained from Messrs. Chemical Construction Corporation, New York, Messrs. Dobson & Barlow Ltd., Bolton, England, the American Trade Commissioner, Calcutta, and the Indian Government Trade Commissioner, Tokio, concerning saw gins for delinting, and the cost of various raw materials for this industry in England, America and Japan. This further information does not, however, call for any substantial alterations in the cost estimates given in the previous Interim Note, nor as regards the other information concerning processes for the production of raw materials for the manufacture of viscose rayon recorded therein.

Staple Fibre.—Information obtained from plant manufacturers and from other sources concerning the manufacture of staple fibre by the viscose process indicates, however, that a factory with a production capacity of only 1 ton per 24 hours a day of this material would not be able to operate economically at competitive prices, and that a factory for this product should have an output capacity of the order of 5 tons per day. As information is not at present available to enable estimates of capital costs of buildings, plant and equipment, labour, etc., for production on this scale to be drawn up, this will be dealt with in a subsequent note.

The production of yarn and staple fibre by the Acetate Process.

Principal producing Companies.—In the previous note, reference was made to the smaller world production of rayon by the acetate process than by the viscose process, and to the fact that production by this process is in the hands of a comparatively few companies of large capacity, the principal of these being Messrs. British Celanese Ltd., in England, and the Celanese Corporation, the Du Pont Rayon Co., the Tennessee Eastman Corporation, and the Viscose Company of America, and the Societa Rhodiaceta Italiana of Italy.

Percentage World Production.—Since 1930 the average annual increase of output of rayon by the acetate process in America has been 46 per cent. as against a corresponding increase of only 13 per cent. in the case of factories operating the viscose process; and in view of the fact that America and India have much in common as regards the necessary raw materials needed for this process, namely cotton, sugarcane molasses, and other waste vegetation materials suitable for the production of alcohol and its derivatives, acetic acid, acetic anhydride and acetone, it would appear that there is a definite connection between the developments effected in their acetate rayon industry and the ready availability of the raw materials.

Progress of technical development.—Nevertheless, even to-day, only 23 per cent. of the total output of artificial silk is produced by the acetate process as compared with approximately 75 per cent. by the viscose process, and the state of technical development of the acetate operations such as spinning and the methods of recovering the acetic acid and acetone solvents, and also the cost of production of these materials and of the quality of cellulose required, are such that yarn and staple fibre of the cheaper qualities cannot at present be produced as cheaply by this process as by the viscose process.

Technical improvements are, however, being rapidly effected, not only in connection with the actual plant and equipment for the production of the acetate rayon, and the efficiency of the methods of recovering the solvents, but also in the efficiency and economic operations of the chemical plants required for the cheap production of alcohol, acetic acid, acetic anhydride and acetone from molasses, so that it is reasonable to anticipate that it will, in the near future, be possible to produce yarns and staple fibre by this process equally as cheaply as in the case of the more highly developed viscose rayon industry.

Auxiliary Industries.—None of the auxiliary industries necessary for the production of the materials required by an acetate rayon industry has yet been established on any considerable scale in India. The auxiliary industries which would be necessary in this connection are those required to undertake the production of high grade cellulose, acetic acid, acetic anhydride and acetone, these being the principal material in use in the industry at present. It may here be mentioned, however, that a promising development appears to lie in the use of sulphur dioxide as a substitute for acetic acid, as this would obviate a considerable amount of the recovery plant required for recovering this acid.

Taking, however, the materials at present in use, the following information may be recorded.

Cellulose.—The material in use in the acetate rayon industry throughout the world for providing this component is "chemical cotton", a brief description of the method of preparation of which was given in the previous note. The use of materials consisting almost entirely of undeteriorated cellulose is essential in the acetate process, and no other source of cellulose has hitherto been found to be economically and technically practicable.

In this connection it cannot be too strongly emphasised that though there may be other suitable sources in India of cellulose for the acetate process, the suitability of such would require to be proved by complete processing from the raw material to the determination of all the characteristics of the finished yarn for fibre, before it could be introduced to the exclusion of the present well-tried material, which is produced from cotton linters and short staple cotton unsuitable for spinning.

The first step necessary as regards the establishment of the acetate rayon and the auxiliary industries in India is therefore a decision as to the price at which "chemical cotton", of the required consistent quality, could be produced in India at the rate of 5 tons or more per day.

Acetic acid, anhydride, and acetone.—The method contemplated for some time for use in the manufacture in India of acetic acid from molasses was the azeotropic method, using the "Usines-de Melle" process of direct distillation from distilled wash, for which purpose suitable strains of "mycoderma aceti" would be developed.

The Suida method was also considered. Information has recently been received, however, that Messrs. Athiers Pingris et Mollet Fontaine Reunis, represented in India by Messrs. Mirrless Watson Co., Ltd., who have been manufacturers of plant operating on the Usines de Melle principle for some years, are now able to provide plant operating on method by which acetic acid is produced by a catalytic process direct from ethyl alcohol. As a number of plants for the production of alcohol from molasses have been installed by this firm in India, the firm has had considerable experience of Indian conditions in this connection.

According to estimates furnished by this firm, the cost of buildings and plant, erected and set out to work, capable of producing 10,000 lbs. of acetic acid per 24 hours day from rectified spirit, would be approximately Rs. 10½ lakhs. This output would be obtained from 1,100 bulk gallons of rectified spirit which would be obtainable at 5 annas per gallon, for the

production of which approximately 17 tons of molasses per day would be required, at an assumed cost of 4 annas per maund.

The firms estimate of costs, based on the above figures, shows that this plant would produce acetic acid at an inclusive cost of Rs. 240 per ton, and the firm points out that India is at present importing about 300 tons of acetic acid per annum, the present c.i.f. price of which is Rs. 520 per ton.

The firm incidentally mentions that the present price of acetic acid on the London market is the equivalent of Rs. 582 per ton, and that to the best of their knowledge the lowest price of large contracts for acetic acid imported from America for the acetate silk industry in England during recent months has been equivalent to about Rs. 420 per ton.

On the basis of the above production cost figures for India, it should be possible for an acetate rayon factory to obtain bulk supplies of acetic acid at 1.9 annas per lb. acetic anhydride at 2.5 annas per lb. and acetone at 3.5 annas per lb.

These substances are not only utilised in connection with the production of acetate rayon, however, but one or other of them are required in connection with the manufacture of cellulose acetate plastics, white lead and other pigments, organic solvents, scents and perfumes, explosives, artificial leather cloth, cellulose acetate varnishes, dissolved acetylene, and many other industrial products.

Possible sources of cotton cellulose in India.—Acetate rayon manufacture starts with a cellulose of 98 per cent. minimum cellulose content, and this is transformed chemically into cellulose acetate, the standard raw material providing the cellulose in the countries in which the acetate process is operated being cotton linters and short staple cotton.

In India it has been suggested that there is a large potential supply of linters from Punjab America cottons, and the short staple from the high-yielding strains *Rosea Bhutta*, 39 *Mollisoni*, 15 *Mollisoni*, and 52 *Mollisoni* might also be utilised for this purpose.

In America, cotton-seed is a source of substantial income to the cotton planter, and the crushing of the seed has become one of the leading industries in the cotton growing areas. The delinting is carried out at the crushing mills by means of saw-gins and this has become a highly developed industry. In 1924 the United States Department of Agriculture, at the request of their Cotton-seed Crushers Association, drew up standards for raw linters, by which they are graded as "first cuts", "mill runs", and "second cuts", and in that country the chemical cotton for rayon manufacture is mainly produced from "second cut" linters corresponding to their standard grades 6 and 7. In this connection it is understood that, doubtless among many other firms who have done so, Messrs. Govindram Seksaria Oil Mills, Hyderabad, Sind, Messrs. Volkart United Press Co., Mirpurkhas, Messrs. B. C. G. A. (Punjab) Ltd., Khanewal, Messrs. Birla Cotton Factory, Cickawadui, and Okara, and Messrs. Seth Jethan and Bulchand, Karachi, have installed saw-ginning plant.

From the sources, 'chemical cotton' would require to be produced for supply to the rayon factories.

Details of factory processes for production of acetate rayon.—For the processes necessary for the production of acetate rayon, large quantities of clean water of high purity and freedom from hardness are required, and also suitable means of effluent treatment and disposal. Effluent at the rate of 100,000 gallons per ton of rayon will be produced part of which may be discharged direct into adjacent streams without fear of pollution, and the remainder will require to be neutralised with lime and allowed to settle before being discharged. The disposal, of the effluent from an acetate rayon factory is, however, not as great a problem as in the case of that from a factory producing viscose rayon.

Factory organisation.—The factory will normally consist of the following ten main departments:—

- (i) the chemical cotton opening and conditioning department,
- (ii) the acetylation department,
- (iii) the ripening department,
- (iv) the precipitation department,
- (v) the washing and stabilising department,
- (vi) the drying department,
- (vii) the acetic acid recovery and anhydride plants,
- (viii) the spinning department,
- (ix) the acetone recovery plant, and
- (x) the processing department.

To these should be added the offices, stores, and control laboratory, and if required, the water softening and effluent treatment sections.

Cotton conditions.—The chemical cotton department receives the chemical cotton, usually in bales, and the layers from these are fed into opening and drying machines for approximate standardisation of the moisture content, after which it is suitably creased and stored under controlled temperature and humidity conditions to ensure a 2-3 per cent. moisture content. Cotton which is too dry is not adequately reactive in the acetylation operation, whereas excess moisture results in dilution and consequent waste of anhydride, renders temperature control during the acetylation more difficult, and also causes to viscosity of the final standard acetate solution to be lowered. It is desirable that a large stock of chemical cotton should always be held and that this be well averaged to assist in the preparation of uniform blends.

Acetylation.—The acetylation department is equipped with non-corrosive metal lined cooling jacketed mixing machines fitted with rotary stirrers or kneaders, and also with mixing vessels of suitable metal equipped with stirrers, for the preparation of the acetic acid and acetic anhydride mixtures required for the acetylation operations. The cotton is here subjected to a pre-treatment with acetic acid containing a small amount (about 1 per cent.) of sulphuric acid, as this facilitates the subsequent acetylation and then to the primary acetylation treatment proper, which consists in the dissolving of the cotton in a mixture of acetic acid, acetic anhydride, and sulphuric acid, the latter being present in small amount only and acting as a catalyst.

The primary acetylation operation occupies a period of 10-12 hours, and passes through six well-defined stages as follows:—

- (1) the addition of the cotton to the above acetylisng mixture in the acetylisng unit,
- (2) the contents of the acetylisng unit assume a fluid consistency, the cotton having been completely dissolved, assisted by constant stirring,
- (3) the contents then gradually stiffen and in due course assume a doughy consistency; the stirring is continued all this time,
- (4) during the above stages, the temperature has tended to rise steadily, and a maximum is eventually reached; the stirring is still continued,
- (5) completion of acetylation, marked by a gradual fall in temperature, and

- (6) water is added to the contents in sufficient quantity to convert the excess acetic anhydride into acetic acid and thereby cause the ripening reaction to commence.

From the end of the third stage the action tends to proceed vigorously, and henceforward the temperature-rise requires to be controlled by means of the acetyliser cooling jacket, through which chilled water or brine is circulated. The maximum temperature that the contents are permitted to attain depends on the type of cotton and the properties required in the finished acetate rayon, but it is not advisable in any case to exceed a temperature of 35° C.

During the fifth stage the temperature also requires to be kept under control and arranged to fall gradually. At intervals a sample is taken and examined microscopically for freedom from unacetylated fibres and also chemically for determination of free acetic anhydride still present. These tests are repeated at regular intervals until the sample is free from all but a trace of unacetylated fibre, the solution is clear, and the anhydride test satisfactory.

To carry through the sixth stage, water is now added to the contents to convert the excess acetic anhydride to acetic acid, after which the acetyliser contents are allowed to fall to the standardised ripening temperature, which is usually 20-22° C. When this temperature has been attained the solution is removed from the acetyliser to mixing vessels for the hydrogenation and ripening treatments.

Hydrogenation and Ripening.—The necessity for this further treatment lies in the fact that if the primary solution, obtained at the end of the sixth stage as described above, is immediately precipitated with water and the product washed and dried, it will be found to have the following properties.

It will consist of hard horn-like fragments, soluble in chloroform and other similar and comparatively costly solvents, but insoluble or only slightly soluble in acetone. The dry product will also be found to present considerable dyeing difficulties.

To obtain cellulose acetate having the necessary characteristics for the production of rayon, therefore, the primary acetate next requires to be diluted with twice its amount of approximately equal parts of softened water and concentrated acetic acid, to which has been added concentrated sulphuric acid to the extent of 10 per cent. of the amount of water used. This new solution is next poured into ripening vessels and these are then removed to a constant temperature ripening room, where they are kept under controlled temperature and time conditions, usually at a temperature of 20-22° C. and a relative humidity not exceeding 70 per cent. for a standardised period which depends upon the operating conditions of the factory and may be up to 72 hours duration. The ripening room requires to be provided with ample fresh-air ventilation for the abstraction of acetic acid fumes given off during the progress of the ripening.

The characteristics of the final product depend upon:—

- (a) the amount of water added to the primary solution,
- (b) the temperature at which the ripening is carried out, and
- (c) the period of ripening.

Formation of secondary acetate.—Samples are taken at intervals to check the progress of the ripening action, and when the tests indicate that a secondary acetate of the required composition and characteristics has been formed, further action is stopped by precipitation of the secondary acetate in a weak solution of sodium acetate or sodium carbonate with water. The precipitate which results is in a flake form and is the cellulose acetate required for rayon manufacture.

The quantity of solution used requires to be such as to neutralise the sulphuric acid present, as this facilitates the subsequent acetic acid recovery process, and for this purpose it is cheapest to use a sodium acetate solution, as this substance can be produced from a portion of the recovered acetic acid and soda ash; which will shortly be manufactured in India, and will then also be an indigenous product.

A point of special interest in connection with present-day cellulose-acetate plant and equipment for the operations described above, is the considerable use that has to be made of aluminium, copper, and gun-metal parts and fittings so as to resist attack by the acetic acid. This tends to make the plant for these operations comparatively costly.

Ripening Department.—The building housing the ripening department requires to be constructed in accordance with fully heat-insulated storage practice with double doors and windows, if any, and provided with automatic cooling and temperature control to maintain a temperature of 20-22° C. and a medium humidity. The storage capacity should be ample for the maximum anticipated output of the factory.

Precipitation Department.—This Department also requires to be provided with adequate space to deal with the maximum anticipated output. The usual type of cellulose acetate precipitator is a cylindrical copper vessel about 4 feet in diameter and 5 to 6 feet deep, provided with gun-metal bladed stirring gear mounted on a vertical shaft, and three of these units would be required in a factory producing 7 tons of acetate rayon per week.

After the precipitated acetate has been removed from the precipitators, the surplus residual acid and water is abstracted by means of centrifugal hydro-extractors provided with copper cages and copper cases. During the centrifuging the contents are repeatedly washed with fresh water until the acidity of the effluent has been sufficiently reduced, the effluent being run to storage tanks to await treatment in the acetic acid recovery plant, and the amount of this to be handled in the case of a factory of the capacity under consideration would be about 3,000 gallons per day. Here again, ample storage capacity is necessary to ensure that the acid recovery plant can be operated continuously without risk of interruption.

Washing and Stabilising Department.—These operations are usually carried out in cylindrical hard-wood vats also provided with vertical shaft stirring gear with gun-metal blades, the dimensions of each vat being of the order of 6 feet diameter and 7 feet deep, with walls 2½ inches thick and for the factory capacity under consideration four such vats would be required.

The acetate from these vats, after thorough washing therein to remove all final traces of acid, is passed again through hydro-extractors of the type used in the precipitation department, after which it goes to the drying department.

Drying Department.—A suitable form of drying plant consists of sheet steel drying chambers, provided with perforated base copper trays to hold the flake acetate. Heated air is blown through the chambers and trays until the acetate is dried to the standard adopted by the factory, the air being pre-heated by steam coils.

This department also houses the grinding and blending plant. The former is not usually necessary if the precipitation operations have been properly carried out, but the latter is essential for use in conjunction with the storage stocks to ensure the necessary averaging of the flake acetate for standardisation purposes.

Acid and Anhydride Recovery Plant.—The economic production of acetate rayon depends almost entirely on the efficient operation of these

plants, which require to be designed and constructed in accordance with the latest developments, and installed by firms who specialise in this work.

Spinning Department.—On being received by this department, the flake acetate is dissolved in the solvent, in this case acetone, in dope mixing vessels. These are usually made of galvanised steel and provided with rotary stirrers, a suitable capacity in the case of the factory under consideration being 1,200-1,500 gallons. The vessels are designed to be air-tight, partly to prevent evaporation of the acetone and partly to enable the solution when ready, to be blown by air-pressure to final blending tanks.

The blending tanks require to be of large capacity for averaging and storage purposes, and each should have a capacity of about 5,000 gallons. Here the viscosity of the solution is carefully checked, and adjusted as may be necessary, and the solution is then ready for filtration and deaeration prior to spinning.

Spinning machines.—The spinning operation may be carried out by the "wet" or the "dry" method, but the latter appears to be in more general use and has been universally adopted in America. For yarn spinning, machines are of frame construction, double-sided and with up to 50 spinnettes or spinning nozzles and corresponding yarn reeling equipments on each side, each spinnerette, complete with filter and pump, together with its corresponding yarn reeling equipment, forming one unit. Each unit is arranged with the nozzle at the top of a trunk or shaft about 6 inches internal dimension and 7 feet long which is provided with duct openings at the bottom and top, through the former of which is admitted warm air and through the latter of which the now acetone laden air is withdrawn.

The details of pump filters, spinning pump and nozzles follow closely the description given in the case of the spinning machines for the viscose process, and special arrangements may be required in the shape of jacketing and wiring of the delivery piping between the blending tanks and the spinning machines to ensure that the solution is delivered to the machines at a standard temperature and, consequently, viscosity.

The number of orifices in the nozzle fixes the number of filaments in the resulting yarn or the denier of the yarn. The fineness or denier of each filament is determined partly by the diameter of the orifice, but mainly by the relation between the rate at which the solution issues from the nozzle and the rate at which the coagulated filament is withdrawn from the bottom end of the trunk or shaft described above by the draw of the yarn reeling equipment mounted below it.

The temperature of the warm air supply to the trunks requires to be higher than the boiling-point of acetone (134° F.), and the temperature, moisture content, and velocity of the air require to be accurately regulated to control the rate of evaporation of the acetone from the filaments while moving through the trunk, so as to ensure the complete removal of the acetone and ensure that the filaments are dry before they reach the reel.

As the filament is arranged to pass through the trunk at the rate of approximately 150 yards per minute, this is an extremely delicate operation.

The yarn after its removal from the reels is chemically a finished product. It does not require the somewhat costly desulphurising, washing, bleaching and drying operations necessary after spinning in the case of the yarn produced by the viscose process, and requires only to be twisted and packed. This simplicity of operation therefore offers many advantages over the viscose process in this respect.

Spinning for Staple Fibre Production.—The production of staple fibre by this process is carried out on similar lines to the methods described in

the previous note in the case of staple fibre production by the viscose process. The dry system is used for the cutting operation, after which the staple fibre is usually baled for supply to the trade.

The Acetone Recovery Plant.—For the economical operation of the acetate process the efficient recovery of all chemicals, excluding the acetone solvent, is essential. The type of plant in general use now for recovery of the acetone from the air abstracted from the spinning machine trunks is that in which activated charcoal is utilised for its absorption. The method of operation is regenerative, a series of vessels containing the charcoal being operated in a cycle. During the first stage of this the acetone-laden air is passed through one of the vessels until the charcoal has become saturated with acetone, whereupon the air flow is diverted to another of the vessels and dry steam is blown through the charcoal which drives out the acetone from the charcoal, the mixed acetone vapour and steam being then condensed and the acetone recovered by means of a rectifying still.

It may incidentally be mentioned that activated charcoal is now manufactured and available in India.

Processing Department.—Twisting. This operation is carried out by the usual plant and methods employed in the cotton textile industry, and the full twisting bobbins are then wound on cones spools and cops, or into skeins, as may be required.

Weaving, dyeing, printing, and other textiles processes now present no difficulties, and a wide range of processes to produce a variety of finishes, and also a considerable variety of dyo stuffs are now available.

Comparative costs of Raw Materials and Factory Estimates, Chemical Cotton.—The importance of taking steps to determine the price at which chemical cotton could be manufactured in India has already been stressed above. It is of fundamental importance in connection with investigation of the possibilities, of setting up the acetate process industry in this country, and is also of great importance as regards the viscose process industry since, in the former, the chemical cotton forms the whole of the material which provides the cellulose and no suitable and equally cheap substitute has hitherto been found, and in the latter it is required for admixture with chemical wood-pulp to the extent of about 30 per cent. of the mixture which provides the cellulose.

In America, where chemical cotton is cheaper than elsewhere in the world, the present price is equivalent to about 3 annas per lb. whereas the present cost of bleached sulphate wood-pulp as used by the viscose rayon industry varies between 1·4 and 2 annas, i.e., about half the cost of chemical cotton.

Acetic Acid, Anhydride and Acetone.—Plants to produce these substances from molasses in India are required. Owing to the low price at which molasses are obtainable here, and the rapid improvements which have been effected in a short period of time in the methods and plants required for their production, the low cost of coal in Bihar and the East United Provinces where large sugar factories with large output of molasses are situated it would appear reasonable to suppose that the substances could be produced more cheaply in India than elsewhere in the world. This is supported by the estimates quoted above for the cost of production of acetic acid provided by Messrs. Ateliers Pingris et Mollet Fomaine Reunis.

Factory Plant Estimates.—Detailed estimates for acetate process plant are not yet available, but available information indicates that for corresponding daily outputs the cost of plants for the viscose and acetate processes respectively, and the size of staffs required for their operation, would not differ materially.

Cost of production per lb. of Acetate Yarn.—The production costs based on the information at present available are as follows:—

	Per lb.
	As.
<i>Management</i> (as in the case of the viscose process) .	1·06
<i>Labour staff</i> (as in the case of the viscose process) .	1·0
<i>Raw materials</i> —	
* Cellulose (cotton) 0·73 lb. at 1·84 annas per lb. .	1·34
Acetic anhydride 1·33 lbs. at 2·5 annas per lb. .	3·33
Sulphuric acid 0·1 lb. at 0·6 annas per lb. . .	0·06
Acetone 0·1 lb. at 3·5 annas per lb.	0·35
Water	0·30 (say)
Total .	<u>6·38 (?)</u>
<i>Add 10 per cent. for water softening and filtering materials, miscellaneous chemicals, etc., recovery plant renewals, etc.</i>	0·64
	<u>7·0 (say)</u>
<i>Steam and electric power costs</i>	1·5
<i>Business expenses.</i> Insurances, packing, cartage, etc. .	0·2
Nett factory cost of acetate yarn per lb.	<u>= 10·8</u>
<i>Depreciation of plant and buildings</i> (as in the case of the viscose process factory) requires to be provided by an on-cost of	2·1
Therefore without provision for interest on capital, the price obtainable for the factory output would require to be	<u>12·9</u>

Staple Fibre Production by the Viscose and Acetate Processes.—Sufficient detailed information is not yet available on which to base reliable estimates regarding the technique and economics of production of staple fibre manufacturers of plant for the production of staple fibre consider that this product cannot be produced at competitive prices from plant with a capacity of 1 ton per day and that a more practicable output is of the order of 5 tons per day.

A report on this subject will be given in a separate note in due course.

59. Commercial Counsellor, Shanghai, China.

- (1) *Telegram No. 499, dated the 13th May, 1938, from the Tariff Board, to the Commercial Counsellor, Shanghai, China.*

Kindly inform whether any bounty payable to dealers on exports of raw silk.

- (2) *Telegram dated the 17th from the Commercial Counsellor, Shanghai, China.*

* **NOTE.**—This figure was also taken in the estimates of factory cost of the viscose process in the previous note.

60. Railways.

(1) *Circular letter No. 507, dated the 13th May, 1938, from the Tariff Board, to certain important Railways.*

The Tariff Board has been directed to enquire into the question of granting protection to the Sericultural Industry. The Board would be grateful if you could forward a statement showing the scales of freight applicable to raw silk, silk waste, cocoons, staple fibre and silk fabrics on your railway under the following heads:—

- (1) Ordinary rates.
- (2) Schedule rates.
- (3) Principal station to station rates.
- (4) Wagon load or other concession rates

So far as items (2), (3) and (4) above are concerned, the Board desires to know to what extent, if any, the rates in actual practice favour Indian raw silk, silk waste, cocoons and silk fabrics as compared with those imported from other countries. The Board would be grateful if the reply to this letter (with six spare copies) could be sent not later than the 15th June.

(2) *Letter No. R. 53/35/15, dated the 19th May, 1938, from the General Traffic Manager, B. B. & C. I. Railway Co., Bombay.*

SERICULTURAL INDUSTRY.

Your letter No. 507, dated the 13th May, 1938.

I beg to give below the classification and the bases of charge applicable to the articles mentioned in your letter:—

	Class.	Basis of charge per maund per mile.
		Pies.
1. Silk, raw or in cocoons	6	0-83
2. Silk waste	4A	0-67
3. Silk fabrics, i.e., piecegoods, silk	9	1-25
4. Staple fibre or artificial cotton, in full-pressed bales [as Cotton (raw)]	4	0-62

No distinction is made between indigenous and imported articles for the purpose of charge, nor are they charged at reduced or concession rates over this Railway.

(3) *Letter No. T. 2406, dated the 25th May, 1938, from the Ag. Agent, Madras and Southern Mahratta Railway Co., Ltd., Madras.*

Re: PROTECTION TO SERICULTURAL INDUSTRY. YOUR No. 507 OF 13TH MAY, 1938.

With reference to the above quoted letter, I have the honour to forward six copies each of two statements--

(a) showing the 'classification' basis of charge for the several commodities mentioned by the Tariff Board. There are no schedule rates applicable to them.

* (b) details of special 'station to station' rates at present in force.

2. Statement 'B' refers entirely to special rates for raw cotton, under which head "Staple fibre" is chargeable, but there is little or no traffic in the latter commodity over this Railway at these rates.

3. The charges shown in Statements A and B apply equally to the indigenous as to the foreign article.

STATEMENT "A".

Classifications in force.

- | | |
|---|---------|
| 1. Silk, raw or in cocoons (e) | 6 R.R. |
| 2. Silk, waste | 4A—R.R. |
| 3. Staple fibre (artificial cotton) as cotton raw:— | |
| Full pressed | 4 R.R. |
| Half pressed | 6 R.R. |
| Loose | 8 R.R. |
| 4. Silk fabric (e)
(Piecegoods silk.) | 9 R.R. |

R.R.—At Railway Risk.

(e)—Excepted article.

(4) Letter No. R. C. 1610, dated the 27th May, 1938, from the Chief Traffic Manager, Great Indian Peninsula Railway, Bombay.

Re: RATES FOR SILK, ETC. YOUR No. 507 OF 13TH MAY, 1938.


In connection with your enquiry regarding freight applicable to Raw Silk, silk waste, cocoons, staple fibre and silk fabrics over this railway. I am enclosing herewith a statement showing the necessary information required (with six spare copies).

The special station to station rates for staple fibre (artificial cotton) as cotton (raw) are shown in the goods Tariff Part I-B in force from 1st June, 1937 (one copy* enclosed), on pages referred to in column 5 of the statement attached. If any more copies are necessary, they will be sent on payment of Rs. 2-12-3 per copy including postage.

This railway does not make any discrimination between Indian Silk and silk imported from other countries.

* Not printed.

Articles.	Ordinary rates, i.e., general classification.	G. I. P. exception.	Schedule rates.	Principal station to station rates.	Wagon load or other concession rates.	Basis of class and schedule rates pie per md. per mile.	Remarks.
1	2	3	4	5	6	7	8
1. Silk raw or in cocons. (e)	6 R. R.	Nd.	Nd.	No special station to station rates have been quoted over this Rly. in local booking for all these articles but some through special rates have been quoted as shown in note (A) on next page.	Nd.	83	1. In addition to the rates arrived at the basis shown in the preceding column a terminal charge of 16 pies per md., i.e., 8 pies at forwarding station and 8 pies at receiving station except for staple fibre (cotton raw) for which 12 pies per md., i.e., 6 pies at forwarding station and 6 pies at receiving station in local booking is to be levied.
2. Silk waste . . .	4A R. R.	"	"		"	67	
3. Piecegoods silk (e). Includes : Silk manufactured N. O. C. Thread or twist Velvet.	9 R. R.	"	"		"	1-25	2. In through booking 8 pies per md. at either forwarding or receiving station. 3. Short distance charge : When the distance over the G. I. P. Railway is less than 75 miles except in the case of cross traffic a short distance charge of 3 pies per md. subject to the differential rule as to distance will be levied in addition to the terminals specified above.

Articles.	Ordinary rates, i.e., general classification.	G. I. P. exception.	Schedule rates.	Principle station to station rates.	Wagon load or other concession rates.	Basis of class and schedule rates per md. pie per md. per mile.	Remarks.
1	2	3	4	5	6	7	8
4. Staple fibre (artificial cotton) as Cotton (raw) full-pressed.	4 R. R.	'C' over the G. I. P. Section. This rate surpasses the general classification class 4 M. (m). When cotton full-pressed is booked at Owner's risk charges will be made over the G. I. P. Section 6 pds lower per md. than at the C schedule rate except where lower station to station rate is quoted. 9 R.R. over the G. I. P. Section except Bom-M.S.M. (m). 8 R.R. } Over the I. M. & A.D. C. Sections. 6 O.R. } The minimum distance for charge in local book- 6 R.R. } ing over these sec- 4 O.R. } tions in 25 miles.	'C' over the G. I. P. Section. This rate surpasses the general classification class 4 M. (m). When cotton full-pressed is booked at Owner's risk charges will be made over the G. I. P. Section 6 pds lower per md. than at the C schedule rate except where lower station to station rate is quoted. 9 R.R. over the G. I. P. Section except Bom-M.S.M. (m). 8 R.R. } Over the I. M. & A.D. C. Sections. 6 O.R. } The minimum distance for charge in local book- 6 R.R. } ing over these sec- 4 O.R. } tions in 25 miles.	For special station-to-station rate in local & through book- ing for cotton raw please see pages 17 to 20 113 to 123, 219 to 241 & 400 to 425 of G. I. P. R. Goods Tariff Part I-B in force from 1st June 1937 sent herewith. Ditto	See note in preceding column.  Do.	.62 for 4 R. R. 1 " C. sch.	See remarks on pre-page.
5. Staple fibre (Artificial cotton) as Cotton (raw) half-pressed.	5 R. R.					.83 for 6 R. R. 1.25 for 9 R. R. 1.04 for 8 R. R. .83 for 6 O. R. .83 for 6 R. R. .62 for 4 O. R.	Ditto.

6. Staple fibre (Artificial cotton) as Cotton loose.	8 R. R.	*9 R.R. over the G. I. P. Section except Bom-M.S.M. (m).	Ditto	Do.	1.04 for 8 R. R. 1.25 for 9 R. R. 1.04 for 8 R. R. .83 for 6 O. R.	Ditto.
		*3R.R. } Over the I.M. & A. D. C. Section. The minimum distance for charge in local booking over these sections is				
		*6O.R. } 25 miles.				

* In Local booking consignments of cotton loose should be loaded and unloaded by senders and consignees. The restriction of 120 mds. minimum applicable to bulky goods does not apply to loose cotton on the G. I. P. Section.

NOTE (A).

Per maund
O. R.

Piecegoods silk (c):—

(1) Bombay to Bhagalpur . . . Ra. 2-1-0 This rate applies to silk yarn only.

(2) Silk raw or in cocoons (c):—

(a) Shalimar, via Shalimar, Calcutta to Bombay Ra. 2-8-0 O. R.
Garden Reach, Kidderpore
Docks, via West Dock Ju. (via
Wagon Ferry) Armenian Ghat.

(b) Howrah, Scaldat, Chitpur and
via Cossipore Road, Ulkadanga,
Kidderpore Docks, Nathati and
via Burdwan. " Ra. 2-9-9 O. R.

(5) *Letter No. R. F. 46-111, dated the 24th May, 1938, from the Chief Commercial Manager, Assam-Bengal Railway Co., Ltd., Chittagong.*

Re: SCALES OF FREIGHT APPLICABLE TO RAW SILK, SILK WASTE, COCOONS, ETC.
Ref: YOUR LETTER NO. 507 OF 13TH MAY, 1938.

I have the honour to inform you that schedule, station-to-station, or other concession rates not being in force over the Assam-Bengal Railway system the commodities in question are charged at class rates.

(6) *Letter No. 560-C./110-C. R. D-II, dated the 31st May, 1938, from the Agent Eastern Bengal Railway, Calcutta.*

With reference to your letter No. 507 of 13th May, 1938, I have the honour to furnish the following information:—

- (i) The commodities mentioned in your letter are charged over this Railway at the full classified rates as shewn below when carried by Goods trains:—

	Class. At Ry. risk.	Basis. Pio per maund per mile.
(i) Silk, raw or in cocoons	6	0.83
(ii) Silk, waste	4A	0.67
(iii) Staple fibre (as Silk Twist or thread)	9	1.25
(iv) Silk fabrics (as piecegoods, silk)	9	1.25

N.B.—No alternative class rates are quoted at Owner's Risk.

- (ii) When carried by passenger trains these commodities are charged at full parcels rate. This Railway has, however, relaxed the rule regarding method of charging parcels in favour of silk cocoon rears, freight being charged only by weight and not by measurement.

2. No Schedule, station-to-station or wagon load concession rates are quoted for the above traffics either by Goods or by Passenger trains over this Railway nor is any distinction in freight rates made between Indian or country-made Silk and Imported Silk.

(7) *Letter No. R. T. 1/162, dated the 30th May, 1938, from the Chief Commercial Superintendent, South Indian Railway, Trichinopoly.*

SILK, RAW, STAPLE FIBRE, ETC. RATE FOR.

With reference to your letter No. 507, dated the 13th May, 1938, to our Agent, which has been forwarded to me for disposal, I beg to inform you that the commodities referred to by you are chargeable over this Railway (Shoranur-Nilambur and Nilgiri Railways excepted) at the following classification and rates (Ordinary) shown against each:—

Commodities.	Classification.	Rate per maund per mile.	Conditions.
Staple fibre (as cotton raw (Artificial cotton).	{ Full-pressed 4 Half-pressed 6 Loose 8	.62 .83 1.04	} At Railway risk.
Silk waste	4A	.67	
Silk raw or in cocoons	6	.83	
Silk fabrics as piecegoods, silk	9	1.25	

In addition, terminal, transhipment and short distance charges notified in Chapter XIII of our Goods Tariff Part I-A No. 2 are leviable.

Two statements* are enclosed herewith showing the special scales of rates (remaining in force only up to 30th June, 1938) for cotton (raw) full-pressed and cotton (raw) loose from any station to any station distant between 150 and 400 miles locally. A third statement* showing the existing station-to-station rates applicable in local booking and in through booking with Foreign Railways is also enclosed. Schedule rate is not applicable for cotton raw full-pressed, half-pressed and loose.

There are no schedule, special, wagon load or other concession rates for raw silk, silk waste, cocoons and silk fabrics over this Railway.

(8) Letter No. 43327, dated the 6th June, 1938, from the Agent, H. E. H. the Nizam's State Railway, Secunderabad (Deccan).

PROTECTION TO THE SERICULTURAL SOCIETY. YOUR LETTER No. 507, DATED THE 13TH MAY, 1938.

As desired, I forward herewith a statement (with six spare copies) showing the scales of rates charged over this railway for the commodities mentioned in your letter quoted above. No differentiation has been made on this railway between the indigenous and imported articles and both are charged at the same rate shown in the statement.

Statement showing the scales of rates for the undermentioned commodities charged over the Nizam's State Railway.

No.	Commodity.	General Classification.†	Rate per maund per mile.	Remarks.
		Class.	Pies.	
1	Raw Silk . . .	6th R. R.	83	
2	Silk Waste . . .	4A R. R.	67	
3	Cocoons . . .	6th R. R.	83	Charged as silk raw.
4	Silk Fabrics . . .	9th R. R.	1-25	} Charged as piecegood } silk.
5	Staple fibre, (silk twist or thread).	Do.	1-25	

(9) Letter No. 1201-R/213, dated the 2nd June, 1938, from the Agent, the North Western Railway, Lahore.

RATE FOR SILK, ETC. YOUR LETTER No. 507, DATED THE 13TH MAY, 1938.

Raw silk, silk waste and cocoons and silk fabrics are classified as shown against each below and are charged over this in all bookings accordingly:—

Classified rates.

Silk, raw or in cocoons . . .	6th class (0-83 pie per maund per mile)
	at Railway Risk.
Silk, waste	4A class (0-67 pie per maund per mile)
	at Railway Risk.
Silk fabrics (as piece goods silk)	9th class (1-25 pies per maund per mile)
	at Railway Risk.

* Not printed.

† NOTE.—In addition to these classified rates terminal charges of 16 pies per maund in local booking and 8 pies per maund in through booking are charged.

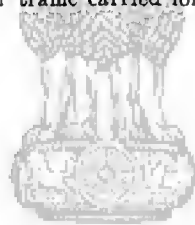
No schedule, station-to-station, wagon load, or other concession rates have been quoted for any of these articles.

2. As regards staple fibre otherwise known as artificial silk, this article is indexed to "Cotton" and is charged at the same rates as applicable thereto. Cotton is classified as follows:—

Cotton (raw), full-pressed . . .	4th class (0.62 pie per maund per mile) at Railway Risk.
Cotton (raw), half-pressed . . .	6th class (0.83 pie per maund per mile) at Railway Risk.
Cotton (raw), loose . . .	8th class (1.04 pie per maund per mile) at Railway Risk.

These are charged at the classified rates and no schedule rate or other concession rates have been quoted therefor except that cotton (raw), full-pressed when booked to Karachi at *owner's risk* is charged at 6 pies per maund less than the Railway Risk rate. With regard to station-to-station rates, it may be stated that these have been quoted in adjustment with the rates quoted by other Railways or in competition with road transport and a list thereof is attached. This Railway has quoted certain station-to-station rates in conjunction with the East Indian Railway, but as this Railway's proportion is at the ordinary classified rates, these are not being shown in the enclosed list.

3. In this connection it may be added that in addition to the rates calculated at the per maund per mile basis as shown against each article in paras. 1 and 2 above, a terminal charge of 8 pies per maund in local booking and 4 pies per maund in through booking and a short distance charge of 3 pies per maund for traffic carried for distances less than 75 miles are also levied.



व्यवस्थापन

NORTH WESTERN RAILWAY.

Statement showing special rates for Cotton (Raw) quoted over the North Western Railway.

Articles.	Stations from	Stations to	Rate per Mauud.	Proportions.		Remarks.
				N. W.	Bk. S.	
Cotton (raw), full-pressed	Mandi Dahwali (viā Bhatinda).	Karachi . . .	Rs. A. P. 2 6 2	Rs. A. P. 2 4 1	Rs. A. P. 0 2 1	These rates have been quoted in ad- justment with the rates quoted by other Railways or to keep traffic to the shortest route.
Cotton (raw), full-pressed, O. R.	{ Chendausi . . }	Karachi (viā Chazi- abad).	2 13 3	2 7 4	E. I. 0 5 11	
	{ Dibal . . }		2 11 8	2 6 11	0 4 9	
	Mandi Dahwali (viā Bhatinda)	Karachi . . .	2 5 8	2 3 7	Bk. S. 0 2 1	
Cotton (raw), loose, O. R., W/81, L	Batala . . .	Tarn Taran . . .	0 2 9	These rates have been quoted in competition with the road transport.
Cotton (raw), loose, W/81, L.	Uklana . . .	Hansi (viā Hissar)	0 3 0	..	..
Cotton (raw), loose, W/81, O. R., L.	{ Vakohe . . }	Kairon . . .	0 1 8	..	..
	{ Gobana . . }	Penipat . . .	0 1 6	..	..
	{ Nur Mahal . . }	Ludhiana . . .	0 1 10*	..	..
Cotton (raw), loose, O. R., L.	Suagam . . .	Lehra Gaggas . . .	0 1 0	..	..
Cotton (raw), loose, O. R.	{ Matli . . }	Hyderabad (Sind) . . .	0 2 5	..	..
	{ Tando Mohd. Khan . . }	Do. do. . .	0 1 11	..	..
	{ Zahir Fir . . }	Rahim Yar Khan . . .	0 3 1	..	..
Cotton (raw), loose, O. R., W/81, L.	{ Bhachchu . . }	Gidderbaha . . .	0 2 0	..	..
	{ Kazi Ahmed . . }	Nawabshah . . .	0 2 3	..	..

*This rate will remain in force up to 30th June, 1938.

(10) *Letter No. 4017-T./3—1, dated the 7th/8th June, 1938, from the Agent, Bengal and North Western Railway, Gorakhpur.*

RATE FOR RAW SILK, ETC.

I beg to state that the commodities referred to in your letter No. 507 of 13th May, 1938, are charged over this Railway at the class rates laid down in Indian Railway Conference Association Goods Tariff No. 21 as under:—

Name of commodity.	Class.	Basis pie per maund per mile.
Raw silk	6th	·83
Silk waste	4A	·67
Cocoons	6th	·83
Staple fibre, full-pressed	4th	·62
Staple fibre, half-pressed	6th	·83
Silk fabrics	9th	1·25

An exception is, however, made in the case of staple fibre loose which when booked at O.R.: W/81; L is charged at 2nd class (·42 pie per maund per mile) against 8th class (1·04) the classified rate.

No schedule, special or any other concession rates are quoted for this traffic over this Railway nor does this administration make any distinction between the indigenous and imported goods.

(11) *Letter No. 13074, dated the 7th June, 1938, from the Agent, Mysore State Railway, Mysore.*

RATES FOR SILK, SILK WASTE, COCOONS, ETC.

With reference to your No. 507, dated the 13th May, 1938, I have the honour to state that we charge the tariff rate for silk, which is 0·83 pies per maund per mile with the usual terminal and short distance charges where leviable. No station-to-station, special, schedule, wagons, or other concession rates are available over this Railway.

(12) *Letter No. C12234/21—360, dated the 13th June, 1938, from the Agent, Bengal Nagpur Railway, Calcutta.*

With reference to your letter No. 507, dated the 13th May, 1938, I have the honour to enclose herewith seven copies of a statement (as submitted to me by our Commercial Traffic Manager) giving the particulars asked for by your Board.

FREIGHT RATES FOR SILK.

Silk Raw or in Cocoons, and Staple fibre (Silk).

Ordinary rates, i.e., "Class rates".—Silk raw or in Cocoons is classified at 6th class. The basis of 6th class rate is ·83 pie per maund per mile. In computing railway rates, additional charges, such as terminal, transshipment, ferry, etc., are charged wherever leviable. Staple fibre (silk) is charged as silk, raw.

Schedule rates.—Over the Bengal Nagpur Railway no schedule rates are quoted for silk raw or in cocoons.

Station-to-Station rates.—The following are the only Station-to-Station rates quoted by this Railway for silk raw or in Cocoons:—

From Shalimar and viâ to Bombay (viâ Nagpur).

Railways.	Miles.	Rate per maund.	Conditions.
		Rs. A. P.	
B. N.	703	1 7 0	} At owner's risk, on actual weight.
G. I. P.	518	1 1 0	
	<hr/> 1,221	<hr/> 2 8 0	

From Shalimar and viâ to Madras (viâ Waltair).

B. N.	545	1 5 2	} At owner's risk, on actual weight.
M. S. M.	485	1 2 10	
	<hr/> 1,030	<hr/> 2 8 0	

These rates are on a lower basis than the "Class" or "Ordinary" rate which are Rs. 5-5-9 per maund and Rs. 4-8-7 per maund to Bombay and Madras, respectively. The reduced rates have been quoted on account of competition with the sea route.

Silk Waste.

Ordinary rates, i.e., "Class" rates.—Silk waste is classified at 4A class. The basis of 4A class rate is 67 pie per maund per mile. In computing railway rates additional charges such as terminal, transshipment, ferry, etc., are charged wherever leviable.

Schedule and Station-to-Station rates.—Over the Bengal Nagpur Railway no schedule or station-to-station rates are quoted for silk waste.

Silk Fabrics.

Ordinary rates, i.e., "Class" rates.—The Railway nomenclature is "Piece-goods, silk, including silk thread or twist and silk manufactured, not otherwise classified". This is classified at 9th class. The basis of the 9th class rate is 1-25 pie per maund per mile. In computing railway rates, additional charges, such as terminal, transshipment, ferry, etc., are charged wherever leviable.

Schedule and Station-to-Station rates.—Over the Bengal Nagpur Railway no schedule or Station-to-Station rates are quoted for Piece-goods, silk including silk thread or twist and silk manufactured, N. O. C.

There are no special concession rates for wagon loads.

No discrimination in railway rates is made in actual practice between Indian Silk and Silk imported from other countries.

(13) Letter No. C. R. 16-T. B. S., dated the 30th June, 1938, from the Chief Commercial Manager (G), East Indian Railway, Calcutta.

Re: RATE FOR RAW SILK, SILK WASTE, ETC. YOUR LETTER No. 507 OF 13TH MAY, 1938.

I beg to enclose a note (with six spare copies of the same) embodying the required information which I trust will meet your requirements.

(1) RAW SILK, (2) SILK IN COCOONS AND (3) SILK WASTE.

1. *Classification—Raw Silk and Silk in Cocoons.*—Both Raw Silk and Silk in Cocoons are classified alike, viz., 6th class=83 pie per maund. Silk Waste is classified 4A class=67 pie per maund per mile.

In addition to the class rates, the terminals and short distance charges, as shown below, are levied:—

	Pies per md.
Terminal at booking station	4
Terminal at destination station	4
Short distance charge for traffic under 75 miles	3

2. *Ordinary rates.*—Ordinary rates are as per classification shown above calculated at the per maund per mile rate on the distance for charge *plus* terminals and short distance charges. When traffic is booked between any two stations on the East Indian Railway the terminal charges as shown above are added to arrive at the total rate chargeable and when traffic is booked between any station on the East Indian Railway and a station on any other Railway in through booking, only one of the terminal charges (*viz.*, either at the booking station or at the destination station, as the case may be) *plus* the short distance charge, where leviable, are added to arrive at the total rate chargeable.

3. *Schedule rates.*—No schedule rates are quoted over the East Indian Railway for Raw Silk, Silk in Cocoons or Silk Waste.

4. *Principal Station-to-Station rates.*—The following station-to-station rate is quoted for Raw Silk and Silk in Cocoons. This rate applies when Silk Raw or Silk in Cocoons is booked at owner's risk:—

Stations.		Route.	Rate per md.		Proportions.	
From	To		Rs. A. P.		Rs. A. P.	
Howrah	Bombay	Viá Naini .	2	9 9	E. I. 0 15 9	G. I. P. 1 10 0

No station-to-station rate is quoted for Silk Waste:—

5. *Wagon load or other concession rates.*—No wagon load or other concession rates are quoted.

6. *The extent to which the rates in actual practice favour Indian Raw Silk, as compared with those imported from other countries.*—The question does not arise.

(4) STAPLE FIBRE (ARTIFICIAL COTTON).

1. *Classification.*—(Indexed to Raw Cotton):—

- (i) Full-pressed 4th class=·62 pie per maund per mile.
- (ii) Half-pressed 6th class=·83 pie per maund per mile.
- (iii) Loose 8th class=1·04 pie per maund per mile.

plus terminals and short distance charges.

These charges are:—

	Pies per md.
Terminal at booking station	4
Terminal at destination station	4
Short distance charge for traffic under 75 miles	3

2. *Ordinary rates.*—Ordinary rates are as per classification shown above calculated at the per maund per mile rate on the distance for charge *plus* terminals and short distance charges apply unless station-to-station rates are quoted.

3. *Schedule rates*.—No schedule rates are quoted over the East Indian Railway.

4. *Principal station-to-station rates*.—The principal station-to-station rates for Cotton Raw F. P. are shown in the enclosed statement marked as Appendix A.*

5. *Wagon load or any other concession rates*.—Special station-to-station rates for cotton (raw) loose in wagon loads between certain stations are quoted over the East Indian Railway and these rates have been shown in the enclosed statement marked Appendix B.*

Concession rate, viz., rates equal to 4th class less 6 pies is charged over the East Indian Railway on cotton full-pressed booked at owner's risk from East Indian Railway stations and *via* to Howrah, Sealdah, Chitpur and *via* Cossipore Road, Ultadanga and Kidderpore Docks.

(5) SILK FABRICS (AS PIECE-GOODS SILK).

1. *Classification*.—9th class=1.25 pies per maund per mile. In addition terminals and short distance charges, as are levied in the case of Raw Silk, are also levied.

No schedule rates are quoted over the East Indian Railway. Only one station-to-station rate applicable to Silk Yarn at owner's risk is quoted. This is shewn below:—

From	To	Route.	Rate per md.	Proportions.
			Rs. A.	Rs. A.
Bombay	Bhagalpur	<i>Via</i> Naini	2 1	<div> <div>G. I. P.</div> <div>E. I.</div> <div>1 4</div> <div>0 13</div> </div>

No wagon load or other concession rates are quoted over the East Indian Railway and the question of discriminating between imported goods and goods of local manufacture does not arise.

61. Chief Commissioner of Railways, Simla.

D. O. No. 7407-T., dated the 19th September, 1938, from the Hon'ble Sir Guthrie Russell, K.C.I.F., Chief Commissioner of Railways, Simla, to the President, Tariff Board.

With reference to the discussion we had with the Tariff Board on the 16th instant, I am enclosing herewith a copy of the following:—

- (i) Railway Board's letter No. 705-T., dated the 18th May, 1915, to certain Railways;
- (ii) Note by the Railway Board regarding policy of Railways in regard to freight rates to and from ports. (This is printed as Appendix VII to the Report of the Public Accounts Committee on the Accounts of 1934-35, Vol. I, Part II).

2. The freight rates per maund for silk, raw from Rawalpindi to the following stations are as indicated against each:—

Karachi	3 14 9
Bombay (Carnac Bridge) <i>via</i> Bhatinda	4 10 6
Madras <i>via</i> New Delhi, Balharshah and Bezwada	8 0 1
Bangalore City <i>via</i> New Delhi and Poona	8 15 3

* Not printed.

Enclosure I.

Copy of letter No. 705-T., dated the 18th May, 1915, from the Railway Board to certain Railways.

I am directed to address you on the subject of the assistance to be rendered by railways in the development of industries in this country. The question has been raised specifically of late by applications which the Railway Board have received for the reduction of rates. These applications had reference as a rule to the special circumstances of the time, but the matter has also a general aspect.

2. The administrations of railways have it in their power to do much for the encouragement of new industries by the quotation of favourable rates for the carriage of the raw material required in manufacture and of the finished product. The permanent establishment of industries in adjacent areas cannot fail directly or indirectly to increase the business of a railway, and to secure these advantages it may even be found remunerative to incur a temporary loss during the initial stages of development. The Railway Board are confident that these considerations already influence the policy of your company State Railways, but they think it desirable to bring them prominently to your attention at a time like the present when the exceptional conditions created by the war offer an unique opportunity for the revival of certain existing local industries which have hitherto languished owing to foreign competition, and for the possible creation of others. Many articles hitherto imported have been excluded from the Indian market, while the cost of others has been largely increased. As you are aware the Government of India are making a special endeavour to take advantage of this opportunity, and the Railway Board's object in inviting your attention to the subject is to secure your co-operation in doing all that is possible for the encouragement of indigenous industry.

3. The Railway Board are of opinion that cases will occur in which the quotation of special rates at the present time will lead to the establishment of industries with much less initial difficulty than would be met with in normal circumstances, and that there is an ample prospect that these industries will lead to a permanent increase of the productivity of the areas in which they have been begun to the mutual advantage of railways and their clientele.

Enclosure II.

Printed on pages 50-54, Appendix VII, to the Report of the Public Accounts Committee on the Accounts of 1934-35, Vol. I, Part II.

NOTE BY THE RAILWAY BOARD REGARDING POLICY OF RAILWAYS IN REGARD TO FREIGHT RATES TO AND FROM PORTS.

The Public Accounts Committee in paragraph 18 of their report (August, 1935), recorded as follows:—

“ The Committee desired that the Railway Department should examine and send a note to the Committee to show whether there is any basis for the allegation generally made that the rates of freight at present charged operate in such a way as to help the export of raw materials and the import of foreign manufactured goods to the detriment of Indian Industries ”.

2. The Railway Board believe that the origin of this allegation is to be found in the special rates that were being quoted many years ago when industrial conditions in India were very different to what they are at present. Such industries as existed absorbed only a small fraction of India's large supplies of raw materials and could meet only a small part of her demand for manufactured goods. India's foreign trade was, therefore, characterised by large movements of raw materials to the ports and large

imports of finished goods from the ports. This constituted the nature of the demand for transport which the Railways had to meet and to which their tariffs had accordingly to be adjusted.

3. Conditions in this respect have materially altered within the last quarter of a century, but the allegation that the Railway freight rates charged operate to help the export of raw materials and the import of foreign manufactured goods continues to be made, apparently because railway tariffs show a large number of special rates quoted for traffic to and from the ports. Practically all these rates have been influenced by the fact that the ports are the chief distributing centres and incidentally also the more important industrial centres.

4. The following extract from the report of the Acworth Committee which enquired into the administration and working of Indian Railways in 1920-21, might be considered as effectively disposing of the charge against Railways on the point in question:—

"149. It is an Indian grievance of old standing—it was voiced in the Legislative Assembly at Delhi in 1915 by a distinguished Indian, now a Member of the Executive Council of Bombay, Sir Ibrahim Rahimtoola—that the railways fix their rates to suit their own pecuniary interests—if indeed it be not to suit the interests of European merchants—regardless of the effect of these rates on the native industries of India. And we have no doubt that the charge is accepted as proved by a large proportion of Indian traders.

150. Charges based upon motives are difficult to prove or to disprove. It was not our duty to investigate specific cases in detail, nor would the time at our disposal have permitted us to do so. Unquestionably, low exceptional rates exist for traffic to and from ports especially the great ports of Calcutta and Bombay. But exceptional rates such as these exist in every country, and are there justified on the ordinary grounds, not only of the economy of handling goods in large volume, but also of competition between railway systems serving the same distributing or consuming area.

151. In one respect, at least, the Indian Railways have refrained from following the accepted railway practice in other countries. It is usual in most countries to concede for export traffic through a seaport rates which are not available to that seaport for local traffic; and vice versa in countries which adopt a Free Trade policy, to fix lower rates for the carriage inwards of goods imported through a port than for goods produced locally at the port town. This practice is not, so far as we have been able to ascertain, followed in India. Bombay receives from up-country large quantities of raw cotton, part of which is worked up on the spot and part exported. Similarly, Bombay distributes to up-country points large quantities of cotton cloth, part of it locally manufactured and part imported. The raw cotton rates down to Bombay port and to Bombay town are the same, and so are the manufactured cotton rates upwards. The same principle, we understand, is applied elsewhere in the case, for instance, of the great Calcutta jute trade".

5. To permit of an appreciation of railway rating policy it is perhaps necessary to explain that, for the purpose of carriage by goods train, all commodities are grouped into classes of which there are sixteen. This grouping is for the purpose of:—

- (a) arriving at the rate to be charged when no station-to-station or schedule rate is quoted; and
- (b) fixing the maximum and minimum rate per maund per mile within the limits of which all rates, whether station-to-station or schedule must be kept, subject to exceptions specially authorised by the Railway Board.

The maximum rate for commodities in the 1st class is 0.38 pie per maund per mile and for commodities in the highest class 1.87 pie per maund per

mile. The minimum rate for the five lowest classes is 0-10 pie per maund per mile and for the remaining eleven classes is 0-166 pie per maund per mile. Within these maxima and minima Railways are permitted to quote special rates according as circumstances may require. These special rates may be either station-to-station rates quoted from and to specific points or schedule rates applicable more or less generally. If no special rate is quoted, the rate normally applicable is the maximum of the class in which the commodity is placed.

6. Railways quote special rates when they have reason to believe that the free movement of traffic by railway would not otherwise be facilitated. The existence of alternative competitive routes, e.g., the rivers in Bengal and coastal shipping the opening up and development of new ports, e.g., Vizagapatam and ports in Kutchiawar, also influence the quotation of special rates. The following special rates quoted for cotton illustrate how coastal shipping influences the quotation of such rates:—

	Per maund.
	Rs. A. P.
Navsari to Howrah (1,168 miles)	2 1 9
Broach to Howrah (1,191 miles)	2 4 7

The Railways' classification for cotton is fourth class, the basis of which is 0-62 pie per maund per mile. To the rates arrived at on the actual distance are normally added what are termed "terminal charges". The above rates to Howrah have, however, not been arrived at on the actual distance by railway, but as follows:—

the ordinary railway freight charge to Bombay, *plus* incidental charges at Bombay which would be incurred if consignments were booked by railway to Bombay in the first instance and rebooked thence to Calcutta, *plus* the special rate which Railways have quoted from Bombay to Howrah in competition with the sea route.

Had these special rate from Navsari and Broach to Howrah not been quoted, the ordinary class rates would have applied *via* Amalner and Nagpur as follows:—

	Per maund.
	Rs. A. P.
From Navsari (1,168 miles)	3 13 8
From Broach (1,191 miles)	3 14 10

With these rates, however, the traffic would not be carried direct to Calcutta, but would move to Bombay and thence rebooked to Calcutta. The quotation of these special rates is obviously justified, but there is no reason for allowing for cotton consigned from Navsari and Broach to, say, Cawnpore special rates on the same or any other basis lower than the fourth class rate. The rates to Cawnpore are accordingly:—

	Per maund.
	Rs. A. P.
From Navsari (831 miles)	2 8 2
From Broach (761 miles)	2 5 4

It will be seen that, although the distance to Cawnpore is 337 miles less than to Howrah and from Broach to Cawnpore 430 miles less, yet the freight rates to Cawnpore are Rs. 6-5 more from Navsari and nine pies more from Broach than they are to Howrah. It is presumably instances of this kind that lend colour to the suggestion that railway freight rates help the export of raw materials to the detriment of Indian industries. If Railways were not permitted to quote special rates, as in the case illustrated, without being compelled to make reductions on the same basis to other centres without similar justification, they would inevitably lose the traffic within competitive areas or else be forced to lose revenue on traffic to areas where there was no competition.

7. Special rates to the ports are also quoted in order to assist in getting commodities placed on the markets of the world in competition with other producing countries. For example, low special rates have been quoted for manganese ore from the Central Provinces to the ports of Bombay, Calcutta and Visagapatam and for chrome ore from Baluchistan to Karachi, as such traffic could not possibly move if the class rate (in these cases first class, i.e., 0.38 per per maund per mile) were applied. The North Western Railway have also notified a rebate of 25 per cent. of the railway freight charges on wheat carried to Karachi for export to ports west of Aden with a view to facilitate the export of surplus produce in competition with wheat from other countries. In spite of this substantial reduction, the tonnage exported has been comparatively insignificant.

8. During the course of the discussion at the meeting of the Public Accounts Committee (*vide* the first para. of this memorandum) it was suggested that the rates for piece-goods and for rice in the Madras Presidency might in this connection be examined. The rates for piece-goods from the ports of Bombay, Calcutta, Karachi and Madras have been compared with those quoted for internal movements by the Railways serving those ports. In no case has the traffic any greater advantage in the matter of freights than it is open to such traffic to secure by existing alternative channels of transport over which the Railways have no control. For example, for piece-goods from Bombay to Calcutta (1,221 miles) the rate per maund is Rs. 1-1 per maund whereas from Bombay to Nagpur (518 miles), the rate is Rs. 2-2-11 per maund. In the latter case, no convenient alternative mode of transport is available, and the rate is, therefore, based on the classification of the commodity (as explained in paragraph 5) on the actual distance from Bombay to Nagpur. In the case of traffic from Bombay to Calcutta, a rate on the same basis would result in the entire traffic offering being carried by sea. The special rate to Calcutta is, it may be added, applicable both for imported and for indigenous piece-goods.

As regards the freight rates for rice in the Madras Presidency, the Railways principally concerned are the Madras and Southern Mahratta and South Indian. On the Madras and Southern Mahratta Railway, the rates chargeable over the system generally are the maximum, i.e., 0.38 pie per maund per mile, but for consignments of not less than 400 maunds from broad gauge stations and 270 maunds from metre gauge stations, the schedule C./G. rate applies. The basis of this schedule, which is telescopic, is as follows:—

Miles.	Pie per maund per mile.
1—300	·38
301—400	·30
401—500	·20
501—600	·125
601—700	·115
Over 700	·10

Lower rates than those arrived at under this schedule are quoted for internal movements but not for traffic from the ports.

On the South Indian Railway, the rates for traffic from the ports are the maximum, i.e., 0.38 pie per maund per mile, while for internal movements there are special rates varying from 5 to 31 per cent. lower than the maximum.

9. The detailed examination made by the Railway Board of the rates policy of Railways in regard to port rates does not indicate that any of these rates operate to the detriment of Indian Industries. On the contrary, a very large number of special rates have been quoted for Indian Industries on a basis appreciably lower than those applicable from the ports, e.g., for sugar from the sugar producing areas, Iron and steel from Tatanagar, etc.

62. Conference of Directors of Industries of Provinces and States interested in the Sericulture Industry.

- (1) *Letter from the Tariff Board to certain Provincial Governments and Indian States No. 1001, dated the 20th September, 1938.*

I am directed to state that the last Tariff Board which enquired into the question of protection to the Indian Sericultural Industry in 1933 was of opinion that this industry was a unique one differing from other industries in the sense that in its modern form it could not stand without Government organisation and assistance. Since the development of industries is a provincial subject under the reformed constitution it has been suggested to the Board that before formulating its final views on the subject, it should convene a conference of all Provincial Directors who are in charge of the Departments of Sericulture in their respective provinces sometime early in November in Calcutta in order to ascertain how far the provinces concerned with this industry are in a position to assist it. The Board will feel most grateful if it could be furnished with the views of the Provincial Government on the subject and also be informed whether the time and place suggested for the proposed conference will suit the convenience of their representative.

- (2) *Letter No. D. 3165, dated the 6th October, 1938, from the Secretary to the Government of His Highness the Maharaja of Mysore, Development Department, Bangalore.*

With reference to your letter No. 1001, dated the 20th September, 1938, requesting to be favoured with the views of this Government in the matter of holding a conference of Provincial Directors in Calcutta sometime early in November in order to ascertain how far the provinces concerned with Sericultural Industry are in a position to assist it, I am directed to state that this Government agrees to the suggested time and place for holding the Conference.

As regards the assistance to be given to the Sericultural Industry by this Government, they have all along been assisting the industry—financially and technically—at considerable cost to themselves and it is their accepted policy to continue to do so, in case the industry is protected in an adequate measure and for an adequate period against foreign competition.

I am to add, in this connection, that it would be of considerable help if a recommendation is made to the Government of India to set apart a reasonable proportion of the revenue derived from levy of protective duties for research and other development work of interest to the whole of India.

- (3) *Letter No. 2673, dated the 26th October, 1938, from the Secretary to the Government of Madras, Development Department, Madras.*

With reference to your letter No. 1001, dated the 20th September, 1938, I am directed to say that the view expressed by the previous Tariff Board that the Sericultural Industry could not stand without Government organization and assistance is as true to-day as it was five years ago. In the meantime, however, marked progress has been recorded in the supply and distribution of tested seed. Thanks to the subvention granted by the Government of India, as much as 93 per cent. of the total seed requirements of the Kollegal taluk were met by cellular seeds in 1937-38. The expenditure incurred in this Province during the current year on sericulture and that

proposed to be incurred during 1939-40 subject to the vote of the Legislature is as shown below:—

	1938-39.		1939-40.
	Budget Estimate.	Revised Estimate.	Budget Estimate.
	Rs.	Rs.	Rs.
Provincial	37,200	34,000	31,600
Government of India grant	16,900	17,000	18,000

2. I am to say in this connection that attempts are being made in this Province to evolve a hardier race of worms that would yield cocoons of a superior quality with richer silk content. A series of experiments have been conducted with a view to (i) enhancing the rearer's and reeler's income and (ii) bringing down the cost of production of raw silk. It is considered that only by the successful distribution of cross-breed seed that the price of raw silk can be brought down appreciably. The Director of Industries has submitted proposals for the institution of a programme of work over a period of five years for the supply and distribution of cross breed seeds. The proposals are under examination.

3. The Government of India Subvention Scheme will expire on 31st March, 1940. In the present state of Provincial Finances it will hardly be possible for the Provincial Government to meet the whole extra expenditure involved in the continuance of the subvention scheme. Unless the subvention is continued beyond that date the result will be that the operations now carried on in connection with production and supply of disease-free cellular seed and research on 'Pebrius disease' will have to be considerably curtailed. Since the Government of India derive a revenue from the imposition of protective duties on raw silk, etc., imported into India, it is reasonable that they should set apart a portion of this revenue for the development of silk industry in India. They should also help the Provinces to consolidate the gains which their present subvention scheme has yielded.

(4) *Letter No. 9483-D., dated the 25th October, 1938, from the Secretary to the Government of Bombay, General Department, Bombay.*

In reply to your letter, No. 1001, dated the 20th September, 1938, I am directed to state that as there is no sericulture and sericulture expert in the Department of Industries of the Government of Bombay at present as these industries do not exist in the Bombay Province, the Government of Bombay does not consider it necessary for its Department of Industries to be represented at the Conference proposed to be held early in November in Calcutta. The Government of Bombay has, however, under consideration a scheme for the establishment of these industries in the Bombay Province and the Director of Industries has accordingly been asked to send to the Tariff Board a note on the subject formulating the views of the Government of Bombay.

(5) *Letter No. Eng. 66/416, dated the 28th October, 1938, from the Director of Industries, Bombay.*

I have the honour to refer to Bombay Government's letter No. 9483-D., dated the 25th October, 1938, addressed to you, and as desired therein, to state as under.

From the records available it would appear that Sericulture Industry existed in some districts of this Province some decades back. Neither sericulture nor ericulture industry at present exists in any part of this Province. It would appear that some of the districts of this Province, from climatic and other points of view, are quite suitable for the re-introduction

of these industries. Government of Bombay have, therefore, at present under consideration a scheme for a survey and preparation of detailed proposals for the re-introduction of these industries in some selected districts of this Province. It is hoped to obtain for this purpose on loan the services of an expert either from the Department of Industries, Bengal or Mysore, and start the work at an early date.

(6) *Circular letter from the Tariff Board, No. 1211, dated the 3rd November, 1938, to the various Provincial Governments and States concerned with the Sericulture Industry.*

I am directed to state that amongst others the following points are likely to be discussed. The information is sent in advance to avoid unnecessary delay.

1. Present position of the industry as compared to 1933 with regard to—

- (i) Silkworms;
- (ii) Mulberry;
- (iii) Seed production;
- (iv) Cocoon production;
- (v) Raw silk.

2. Schemes likely to be undertaken by the Government for the betterment of the industry and the amounts likely to be spent on them from the provincial exchequer if adequate protection is granted.

3. Working of the Imperial Sericultural Committee; suggestions, if any, to make it more useful to the industry and the amount considered necessary to be set aside for this purpose.

4. What efforts are likely to be made to develop co-operation in sericultural research so that the benefit of one unit may be shared by all.

5. The measure and period of protection desired.

(7) *Names of the representatives nominated by the Local Governments and Indian States who attended the Conference of Directors of Industries held in Calcutta, on the 16th and 17th November, 1938.*

Province or State.	Names of representatives.
Bihar	Mr. V. K. B. Pillai, I.C.S., Director of Industries. Mr. M. N. De, Superintendent, Silk Institute, Bhagalpur.
Bengal	Mr. S. C. Mitter, Director of Industries. Mr. C. C. Ghosh, Deputy Director of Industries. Rai Sahib S. N. Bose, 1st Superintendent of Sericulture.
Madras	Mr. L. B. Green, M.B.E., Director of Industries. Mr. K. T. Achayya, Sericultural Expert.
Assam	Mr. S. L. Mehta, Director of Industries.
Kashmir	Mr. T. O. Wazir, M.A., Director of Sericulture, Jammu.
Punjab	Rai Bahadur Lala Ramlal, P.C.S., M.B.E., Director of Industries.
Mysore	Mr. M. S. Ramchandra Rao, Director of Industries and Commerce. Mr. H. S. Govinda Rao, Superintendent of Sericulture.
Bombay	Mr. M. E. Haskell, Industrial Engineer, Bombay.

(8) *Note of points for the Directors prepared and circulated by the Tariff Board.*

Silk Worms.

- (1) Varieties of silk worms.
- (2) No. of worms in an ounce of seed and their weight in grammes (per oz.).
- (3) Percentage of wastage (through disease and defective rearing).
- (4) Suitability from the point of view of roarers of layings of eggs and seed cocoons.

Mulberry.

- (1) Bush and tree compared.
- (2) Cost of cultivation (initial and recurring).
- (3) Method of cultivation.
- (4) Labour charges.
- (5) Yield of leaves per acre.
- (6) Cost per lb. of leaves.

Seed production.

- (1) Imported or local and percentage of each.
- (2) Hibernated seed.
- (3) Progress made in the production and issue of disease free seed.
- (4) Cost of production and sale price of—
 - (a) disease free layings—
 - (i) cross breed and
 - (ii) pure indigenous.
 - and (b) seed cocoons -
 - (i) cross-breed and
 - (ii) pure.

Cocoon production.

- (1) Percentage of worms hatched.
- (2) Method of rearing.
- (3) Number of days required to form a cocoon.
- (4) Amount of leaves required for feeding during each age.
- (5) Method adopted of stifling or conditioning of cocoons.
- (6) Yield of cocoons per ounce of silk worm seed.
- (7) Consumption of leaves per lb. of cocoons produced.
- (8) Sorting of cocoons.
- (9) Cost of production of a lb. of cocoons.
- (10) Sale price per lb. of cocoons.
- (11) Number of cocoons to a lb. (cross-breed and local).
- (12) Percentage of production (cross-breed to local).
- (13) Silk content of cocoons:—
 - (i) Race.
 - (ii) Quality.
 - (iii) Weight of 100 cocoons (dry).
 - (iv) Weight of chrysalis.
 - (v) Weight of silk shells.

Raw silk.

- (1) The Rendita based on cross-breed and local (charkha filature).
- (2) Cost of production of $1\frac{1}{2}$ lbs. of raw silk (cross-breed and local) by charkha working 9 hours a day for 15 days in a month.*
- (3) Cost of production of 1 lb. of raw silk in a 200 basin filature (economic unit) (cross-breed and local).*

Wages of Labour.

- (1) Charkha.
- (2) Filature (whether based on number of skeins).
- (3) System of payment.
- (4) Whether based on efficiency or daily output per head.

Sale price of silk waste per lb.

- (1) Charkha.
- (2) Filature (local and foreign).

Re-reeling charges.

- (1) Whether necessary for Indian silk.
- (2) Percentage of loss in degumming.

"Though the price of Japanese and Kashmir silk may be the same, the Japanese silk will be able to compete indirectly with Kashmir silk because of the smaller loss percentage in degumming of Japanese silk. A difference of about annas 9 per lb. will be found as a result of this variation in the loss in degumming which means that to the weaver it is cheaper to use Japanese silk than to use Kashmir silk although both Kashmir and Japanese may be selling in the market at the same price. * * * While Japanese raw silk loses only 22 per cent. in degumming, Kashmir yellow silk of the best quality loses at least 30 per cent. Therefore the quantity of Kashmir silk required to produce one lb. of finished cloth will be more than if Japanese raw silk was used."

C. I. F. Price per lb. of imported silk.

- (1) Waste products.
- (2) Duppon.
- (3) Hand-reeled.
- (4) Canton filature.
- (5) Japanese filature.

Dumping of Japanese silk in India and the assistance given by the Japanese Government.

Expression of opinion with regard to the future trend of prices.

Information, if any, regarding the present cost of production per lb. of silk in China and Japan.

Marketing of Indian silk—proposals regarding marketing organisation.

Present position of the handloom weaver.

Expression of views with regard to the customs classification and tariff values.

Present production of raw silk in India and estimated production if adequate protection is granted.

Competition from other synthetic fibres.

* Estimates prepared during oral evidence are attached.

Measure and period of protection required and expression of views on the present scheme of protection. Examination of its effect on the handloom weaver.

Schemes which are at present being worked for the benefit of the Industry.

Schemes likely to be undertaken by the Government for the betterment of the industry and the amounts likely to be spent on them from the provincial exchequer if adequate protection is granted.

What research work is at present carried on with the help of Provincial and Central grants.

Working of the Imperial Sericultural Committee: suggestions, if any, to make it more useful to the industry and the amount considered necessary to be set aside for this purpose.

What efforts are likely to be made to develop co-operation in sericultural research so that the benefit of one unit may be shared by all.

Preference at present enjoyed by the Indian Industry in the United Kingdom and the question whether the existing margin of preference is adequate.

(9) *Memorandum submitted to the Tariff Board by the Directors of Industries.*

We have considered the note of points furnished to us by the Tariff Board. On most of the points detailed information has already been furnished by us in our written memoranda and oral evidence tendered before the Board. There are some points included in the note on which it is not possible, for obvious reasons, to come to an understanding which will apply equally to all sericultural areas. We have, therefore, not considered it necessary to express our views on such points; but we shall be ready to place before the Board any further information that they may require in the course of discussions.

We now proceed to deal briefly with the other points on which we have considered it possible to express our views:

Suitability from the point of view of rearers of layings of eggs and seed cocoons.—We consider that the more suitable and desirable method is to supply rearers with disease-free layings. In Bengal, the practice of purchasing seed cocoons by the rearers is in force. Bengal appreciates the advantages of supplying rearers with disease-free layings and agrees to bring about this improvement as quickly as possible.

Mulberry—Bush and Tree.

We consider that having regard to the lower costs of tree mulberry, it would be desirable and necessary to extend the cultivation of tree mulberry. We also consider that it is not possible to entirely replace bush mulberry by tree mulberry in certain areas and in certain climatic conditions. A certain extent of bush mulberry is, in any case, necessary as worm food. The raising of tree mulberry is a long and tedious process requiring large investment, and unless the sericulturist is assured of assistance for a fairly long period, we consider that it would be difficult to persuade him to change over from bush mulberry to tree mulberry.

Cocoon Production.

Sixteen pounds of mulberry leaves per lb. of green cocoons produced may be adopted for all India.

Sorting of cocoons is desirable and necessary and we consider that this can be easily done when the quality of cocoons produced is suitably improved.

We consider that the fair selling price of cocoons for all India should be fixed at 5 annas per lb.

Raw Silk—Rendita.

Taking all India into consideration, the present production of cross-breed cocoons is limited and it is therefore necessary to adopt a slightly higher rendita and the average rendita for the whole of India should be adopted as follows:—

Charaka Silk.	1st quality.	2nd quality.	3rd quality.
Rendita . . .	15 to 1	13 to 1	12 to 1

As no differentiation can be made in the case of cocoons required for reeling first, second and third qualities of silk, there can be only one uniform price for cocoons which should be fixed at 5 annas per lb. as stated above.

As regards Filature Silk, the rendita for Univoltine Cocoons (Kashmir) may be taken at 14 to 1 and for Multivoltine Cocoons at 16 to 1 for all India.

Cost of Production.

We have carefully considered costs of production of charaka and filature silks compiled by the Board. We consider that in formulating costs, regard should be had to the conditions obtaining in several sericultural areas and that it is necessary to take into consideration conditions obtaining in the least developed area. With a view to affording sericulturists adequate assistance, the fair selling price in the case of cocoons should be fixed at 5 annas a lb. We consider that it is only when this figure is adopted that the sericulturist will be enabled to earn a fair living wage for himself and can be induced to improve his efficiency. On this calculation, the fair selling price of 20/24 denier filature silk comes to Rs. 6.10 per lb. and the prices of 1st, 2nd and 3rd grade charaka silks, Rs. 6.0-8, Rs. 5.3-3 and Rs. 4.12-9 respectively as shown in the enclosed statements.

As regards the production of silk per basin per day, we consider that it is not possible to attain 1½ lbs. of 20/24 denier silk per basin per day. Even in Japan with superior Univoltine cocoons, the average production is about 1½ lb. per basin per day. This figure may be adopted in the case of Indian Filatures also.

We have increased the provision under Repairs and Renewals from 1 per cent. to 2½ per cent. in view of the kind of machinery that is used in Filatures and also because depreciation has been calculated at 5 per cent. which, we consider, ought to be at least 7½ per cent.

Sale Price of Silk Waste.

We do not except any increase in the market price of charaka and filatures wastes in the near future. The prices may reasonably be fixed at 4 annas per lb. of charaka waste and 10 annas per lb. of filature waste. Re-reeling charges: We consider that re-reeling in the case of first grade charaka silk is necessary as foreign silk comparable to that quality is now being increasingly imported. The re-reeling charges of 3 annas per lb. adopted is reasonable.

Boiling off.

This question arises only in the case of Kashmir yellow silk. The Kashmir representative considers that in the case of Kashmir yellow a loss of 27 per cent. in boiling off may reasonably be allowed.

Dumping.

Full information on this subject so far as we have been able to gather from official and non-official sources has already been placed before the Board.

Future trend of prices.

We find it difficult to express any opinion as regards the future trend of prices. If regard be had to the fact that during the last four years during which the present protection has been in force, there has been no effect whatever on foreign imports and also to the present unsettled conditions in Japan and China, we consider that the tendency, if we may venture on a prophecy, would be for foreign silks to continue to sell at the sale low prices, if they do not deteriorate still further.

Marketing of Silk.

We consider that action should be taken by the several Provincial and State Governments in creating marketing organisation for popularising Indian silk in the various consuming centres.

We consider it desirable that steps should be taken at once to start Sericultural Co-operative Societies for the joint supply of examined seed to sericulturists and also for a common marketing of cocoons produced.

Customs Classification and Tariff Values.

We consider the present Customs classification satisfactory. But we consider that the present method of fixing tariff values should be abolished and that protective duties should be levied on the basis suggested by us later in dealing with the question of the measure and form of protection.

Present production of Raw Silk in India and estimated production if adequate protection is granted.

The present production of raw silk in India according to the major Sericultural Provinces and States in 1937-38 was as follows:—

	Lbs.
Mysore	800,000
Bengal	500,000
Madras	115,000
Kashmir	250,000
Total	1,665,000

During 1937-38, the imports of foreign silk amounted to 25½ lakhs of pounds. So that the consumption of silk in India may be taken at about 42 lakhs of pounds under present conditions. In case the industry is adequately protected we consider that it will be possible within a period of 10 years to increase the present production to about 40 lakhs of pounds as shown below:—

	lbs.
Mysore	1,600,000
Bengal	1,200,000
Madras	500,000
Kashmir	500,000
Other Provinces	200,000
Total	4,000,000

Measure of protection required.

We consider that the protective duties should be so fixed as to raise the price of imported silks of various grades to the level of the fair selling price of corresponding qualities of indigenous silks.

Protective duties may take the form of both a revenue duty *plus* a specific duty. The period of protection, we consider, should be at least 10 years.

Working of the Imperial Sericultural Committee.

We consider that the composition of the Imperial Sericultural Committee should be revised so as to include Sericultural Experts of various Provinces and States. The functions of the Committee should also be widened and the annual meetings of the Committee should be held separately and not as part of the Industries Conference as is the practice at present. The Committee should in addition to other functions deal with the following:—

- (1) Review progress of sericultural work done in the various Provinces and States during the year,
- (2) Decide programme of development work for the future,
- (3) Co-ordinate the work of the various Provinces and States,
- (4) Lay down lines of research work to be done and the results to be made available for the whole of India.
- (5) Allocation of grants to the Provinces and States.

Allotment of grants.—We consider that the present grant of Rs. 1,00,000 given to the Imperial Sericultural Committee is absolutely inadequate and that the grant should be raised to at least Rs. 3 lakhs a year for a period of 10 years.

We consider that in addition to the sericulturists as such, assistance should be given to silk handloom weaving industry on the lines of assistance afforded at present to cotton handloom weaving industry and that the Imperial Sericultural Committee should be entrusted with this work and that a reasonable part of the grant made to the Imperial Sericultural Committee should be devoted to render assistance to silk handloom weaving industry.

Charka Silk—Rendita.

The rendita of Multivoltine cocoons for the first, second and third qualities of Charka Silk as furnished in the last Tariff Board Report (noted below) may be maintained:—

Quality	1st.	2nd.	3rd.
Rendita	15 to 1	13 to 1	12 to 1

Cost of Cocoons.

(a) The price per pound of cocoons for different grades of Charka silk should be uniformly annas five (annas five per pound) and this should not be reduced. This price will hold good for all India.

(b) Production per charka per day may be taken at 1½ lbs. for all grades for all India.

(c) Apart from the price of cocoons, the figures given in the Tariff Board note as regards other charges (noted below) may be maintained now also:—

Quality	1st.	2nd.	3rd.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
Other charges	1 8 0	1 7 9	1 0 9

Details of cost of production of charka silk.

	1st quality.	2nd quality.	3rd quality.
1½ lbs. per day per charka. Cocoons (at 5 annas per lb.)	22½ lbs.	19½ lbs.	18 lbs.
	Ra. A. P.	Ra. A. P.	Ra. A. P.
	7 0 6	6 1 6	5 10 0
Other charges	1 8 0	1 7 9	1 5 9
	8 8 6	7 9 3	6 15 9
For 1½ lbs. of silk . .	5 11 0	5 0 10	4 10 6
For 1 lb. of silk . . .			
Less cost of ¼ lb. of waste at 4 annas per lb. . .	0 2 0	0 2 0	0 2 0
	5 9 0	4 14 10	4 8 6
Add interest on capital and depreciation on plant and machinery per lb.	0 4 8	0 4 5	0 4 3
Add re-reeling charges .	0 3 0	...	...
Fair selling price . . .	6 0 8	5 3 3	4 12 9

Filature Silk.

Production per basin per day: 1½ lbs. of 20/24 denier.

Rendita of cocoons: Univoltine 14 to 1 Multivoltine 16 to 1.

Cost per lb. Univoltine 6 annas. Multivoltine 5 annas.

Filature of 200 basins—Working days 300.

Yield of silk: (per year). 200 basins × 300 days × 1½ lbs.: 80,000 lbs.

Cocoons (Multivoltines) to produce 80,000 lbs. of silk:

80,000 × 16 : 1,280,000 lbs.

	Rs.
Cost of cocoons at 5 annas per lb. 12,80,000 × 5 annas	4,00,000
Transport charges at 4 pies per lb. (as. and ps. omitted)	26,666
Stifling charges at 2 pies per lb.	13,333
Labour	45,000
Supervision	23,712
Power, etc.	20,000
Repairs at 2½ per cent.	1,575
Miscellaneous	1,200
Selling expenses	2,500
Total	5,33,986

		Rs.
Less value of 50,400 lbs. of waste at 10 annas per lb.		31,600
		<u>5,02,486</u>
	Rs.	
Add Depreciation	7,050	
Interest on capital:		
	Rs.	
Cocoons	1,00,000	} 10,500
Silk	1,10,000	
PROFIT	9,600	
		<u>27,150</u>
Total cost		<u>5,29,636</u>

Fair selling price per pound of filature silk—Rs. 6-10.

(10) Statement regarding fair selling price of charka silk in the Joint Memorandum of Directors of Industries. (For another statement please see the Memorandum.)

Rendita.	15	13	12
	1st grade.	2nd grade.	3rd grade.
Wages of reeler and turner	0 12 0	0 11 0	0 10 0
Cost of fuel	0 4 0	0 4 0	0 4 0
Cost of water	0 2 0	0 2 0	0 2 0
Selling expenses	0 2 3	0 2 3	0 2 3
Transport and brokerage	0 3 0	0 2 9	0 2 6
Contingencies	0 1 6	0 1 6	0 1 6
Supervision and management	0 1 3	0 1 0	0 0 9
Other charges (according to Tariff Board's figure)	1 10 0	1 8 6	1 7 0
Cost of cocoons at 5 annas per lb.	7 0 6	6 1 6	5 10 0
Work cost for 1½ lbs.	8 10 6	7 10 0	7 1 0
Cost of production of 1 lb.	5 12 4	5 1 4	4 11 3
Add interest on working Capital 12½ per cent. for 3 months and depreciation	0 4 8	0 4 5	0 4 3
	6 1 0	5 5 9	4 15 6
Less cost of ¼ lb. waste	0 2 0	0 2 0	0 2 0
	5 15 0	5 3 9	4 13 6
Add profit	0 2 0	0 2 0	0 2 0
	6 1 0	5 5 9	4 15 6
Add re-reeling charges	0 3 0	...	...
FAIR SELLING PRICE	6 4 0	5 5 9	4 15 6

63. Smuggling of Silk.

- (1) *Demi-official letter No. 957, dated the 9th September, 1938, from the President, Tariff Board, to the Hon'ble Mr. M. Slade, C.I.E., I.C.S., Secretary to the Government of India, Department of Commerce, Simla.*

During the course of our oral examination in Bombay it was pointed out that a great deal of silk is being smuggled into India from Pondicherry. The Board will feel grateful if you could let them know what precautions are taken by the Government of India and whether the goods coming through Pondicherry are liable to the ordinary customs duties prevailing in British India.

- (2) *Demi-official No. 46-T. (4)138, dated the 21st September, 1938, from N. R. Pillai, Esq., C.B.E., I.C.S., Joint-Secretary to the Government of India, Department of Commerce, Simla, to the President, Tariff Board.*

With reference to your demi-official letter No. 957, dated the 9th September, 1938, to Slade, I am desirous to say that the following principal measures of precaution have been taken by the Government of India to prevent the smuggling of dutiable goods into India from Pondicherry:—

- (a) The shipment from or transshipment at an Indian port to Pondicherry of certain highly dutiable goods (including silk goods) has been prohibited under sections 49, 111 and 134 of the Sea Customs Act.
- (b) A Packet Post Convention was concluded with the French Indian authorities in May, 1936. Under this arrangement, packets (which, in the internal traffic between French Settlements in India, are capable of being carried up to a weight of 7 kilogrammes or 15 lbs. as letter mail) containing goods liable to British Indian customs duties handed in for despatch by post from Pondicherry to Chandernagore, Mahe and Yanam are required to be produced before the British Indian Customs Officer at the French post offices at Pondicherry for assessment and recovery of British Indian Customs duties before transmission to destination.
- (c) The customs cordons round Pondicherry have been strengthened since November, 1936. The anti-smuggling measures adopted by Government are reported to have had a beneficial effect upon the silk markets in Bombay and Calcutta and are understood to have substantially reduced the contraband traffic over the frontiers of Pondicherry. The authorities at Madras keep a watch and carry out vigorous searches with a view to preventing smuggled goods being sent to Calcutta and Bombay.

2. Under the Commerce Department Notification No. 24-T., dated the 1st April, 1924, the French Settlement of Pondicherry has been declared to be foreign territory for the purposes of section 5 of the Indian Tariff Act and a customs duty at the rate prescribed by the Act is leviable on any article when imported by land into British India, while section 20 of the Sea Customs Act provides the necessary authority for imports by sea. Imports from Pondicherry are thus liable to the ordinary customs duties prevailing in British India.

- (3) *Demi-official, letter No. 1114, dated the 8th October, 1938, from the Secretary, Tariff Board, to the Hon'ble Mr. M. Slade, C.I.E., I.C.S., Secretary, to the Government of India, Department of Commerce, New Delhi.*

The Tariff Board has been informed that Japanese silk is being imported into Burma free of duty and from that place comes into India free of duty.

The evidence recorded by the Board does not indicate that this practice is being extensively followed, but I should be grateful if you would let me know what the position really is in this respect.

- (4) *Demi-official D. A. Dis. No. 1441-Cus. I./38, dated the 25th October, 1938, from A. H. Lloyd, Esq., C.S.I., C.I.E., I.C.S., Member, Central Board of Revenue, New Delhi, to the Secretary, Tariff Board.*

SILK, RAW—IMPORT BY LAND FROM CHINA INTO BURMA AND SUBSEQUENT RE-EXPORT TO INDIA WITHOUT PAYMENT OF DUTY.

Will you please refer to your demi-official letter to Slade No. 1114, dated the 8th October, 1938?

2. I enclose an extract from a letter which we have addressed to the Government of Burma in the matter, which states the position as we understand it at present.

Extract from letter C. No. 371-Cus. I./36, dated the 23rd August, 1938, from the Deputy Secretary to the Government of India to the Government of Burma, Lands and Revenue Department.

SILK, RAW—IMPORT BY LAND FROM CHINA INTO BURMA AND SUBSEQUENT RE-EXPORT TO INDIA WITHOUT PAYMENT OF DUTY.

3. During the three years 1935-36, 1936-37 and 1937-38, the imports of raw silk into India from Burma amounted to lbs. 19,702, lbs. 102,657 and lbs. 93,537 respectively. The Government of India understand that the quantity of raw silk produced in Burma is small. Imports from Burma into India would therefore appear to represent raw silk of foreign origin. As the customs duty on raw silk in British India and in Burma is the same, there seems to be no reason to suppose that the quantities imported into India from Burma were previously imported into the latter country by sea on payment of duty. The irresistible inference therefore is that the imports of raw silk into British India from Burma represent silk imported free of duty by land into Burma from China.

4. The loss of Customs revenue involved is estimated at least Rs. one and a half lakhs annually, a loss which the Government of India cannot afford to ignore in the present circumstances.

64. Information regarding number of persons supported by the hand loom weaving industry.

- (1) *Circular letter from the Tariff Board No. 1345, dated the 6th December, 1938, to all Provincial Governments and certain Indian States.*

I am directed to invite your attention to table LIII, on page 102 of the last Report of the Tariff Board on the Sericultural Industry in India and to request that the Board may be furnished with similar information for 1937-38 regarding the number of persons supported by the hand loom weaving industry in its different branches, namely, silk weaving, artificial silk weaving and weaving of mixed fabrics.

The favour of an early reply is requested.

- (2) *Letter No. 458-T., dated the 18th December, 1938, from the Deputy-Director of Sericulture, Bengal, Berhampore.*

With reference to your letter No. 1345, dated the 6th December, 1938, to the address of the Secretary to the Government of Bengal, Agriculture

and Industries Department, I have the honour to say that the figures as asked for have already been sent to you with this office u/o No. 402-T., dated the 9th December, 1938 (*vide* item No. 4 of the documents).*

(3) *Letter No. D. 6084/Seri 48-38-6, dated the 9/10th January, 1939, from the Secretary to the Government of His Highness the Maharaja of Mysore, Development Department, Bangalore.*

I am directed to forward herewith a statement regarding the number of persons supported by the handloom weaving industry, etc., as desired in your letter No. 1345, dated the 6th December, 1938.

Statement furnishing information regarding the number of persons supported by the handloom weaving industry, etc., in the Mysore State.

Province or State.	Number of persons supported.	Number of looms working on			Annual value of production of silk goods.
		Silk.	Cotton.	Total.	
					Rs.
Mysore . . .	30,000	3,000	20,000	25,200	22,20,768

NOTE 1.—The difference between the total number of looms reported and those shown under silk and cotton above represents the number reported as being used in the weaving both of cotton and silk.

2.—The number of persons supported shown in the column (2) above represents the total number of handloom weavers in the State.

(4) *Letter No. 89-D., dated the 11th January, 1939, from the Secretary to Government of Orissa, Development Department, Cuttack.*

With reference to Mr. Nasrullah's letter No. 1345, dated the 6th December, 1938, I am directed to say that in the circumstances stated in my letter† No. 7850-D., dated the 14th December, 1938, it has not been possible for the Provincial Government to estimate the number of persons supported by sericulture industry in Orissa. A statement in the form referred to in Board's letter under reply, giving information regarding the number of looms, etc. and annual value of production of silk goods, is however, enclosed.

Statement showing the figures relating to silk, artificial silk and mixed silk.

Province or States.	No. of persons supported.	No. of looms working on.			Annual value of production of silk goods.
		Silk.	Artificial silk.	Mixed.	
1	2	3	4	5	6
					Rs.
Orissa . . .	..	897	420	584	4,54,200

* Printed with Bengal Government evidence.

† Not printed.

(5) *Letter No. 33179-II/38—2, dated the 17th January, 1939, from the Secretary, to the Government of Madras, Development Department, Madras.*

Subject: SERICULTURE—NUMBER OF PERSONS SUPPORTED BY THE HANDLOOM WEAVING INDUSTRY IN 1937-38.

With reference to Mr. Mohd. Nasrullah's letter No. 1345, dated 6th December, 1938, asking to be furnished with information on the above subject, I am directed to state that the information asked for is not available. Based on the statistics, however, of handlooms engaged in silk weaving and art silk weaving, the Director of Industries and Commerce has worked out approximate figures of persons supported by these two branches of the industry. A copy of his report No. 2626-D./38, dated the 23rd December, 1938, in the matter is enclosed. His answers to the Tariff Board's Questionnaire under 'Sericultural Enquiry (Handloom Industry)' was forwarded with my letter No. 2720-II/38—8, dated the 22nd July, 1938.

[Enclosure.]

Copy of letter No. 2626-D./38, dated the 23rd December, 1938, from the Director of Industries and Commerce, Madras.

Subject: SERICULTURAL TARIFF BOARD—NUMBERS OF PERSONS SUPPORTED BY THE HANDLOOM WEAVING INDUSTRY IN 1937-38.

Reference: GOVERNMENT ENDORSEMENT No. 33179-II/38—4, DEVELOPMENT, DATED THE 10TH DECEMBER, 1938.

Information in regard to the number of weavers engaged in different branches of the handloom weaving industry has already been furnished in answer to question No. 1 of the questionnaire issued by the Silk Tariff Board. But information in respect of the number of persons supported by silk weaving, art silk weaving, and the weaving of mixed fabrics is not available. The only method of estimating the numbers engaged in the different sections would be by taking the number of handlooms as the basis. According to the statistics collected by the Revenue authorities in 1934 and 1935 (no statistics having been taken later) the number of looms in this Province engaged in silk weaving and art silk weaving respectively was 23,236 and 26,195. On the basis of these figures, and assuming an average of three dependents to a weaver, the number of persons supported by the silk weaving industry and art silk weaving industry may be roughly estimated at about one lakh in each case as shown below:—

Silk	.	.	.	.	.	.	.	23,236 × 4 =	92,944
Art silk	.	.	.	.	.	.	.	26,195 × 4 =	104,780

It is not possible to estimate the number of looms engaged in weaving mixed fabrics and consequently the number of persons supported thereby as weavers do not confine their attention to such work during the whole year, but devote their attention to silk, art silk and cotton according to seasonal demand.

(6) *Letter No. 172/XVIII—618, dated the 18th January 1939, from the Government of the United Provinces, Industries Department, Lucknow.*

With reference to your letter No. 1345, dated the 6th December, 1938, I am directed to forward herewith, for the information of the Tariff Board, a copy of the Provincial Director of Industries' letter No. 1926/M.-S., dated the 1st January, 1939.

Copy of a letter No. 1926/M.-S., dated the 6th January, 1939, from the Director of Industries, United Provinces, to the Officer on Special Duty, United Provinces Government, Industries' Department, Lucknow.

WITH REFERENCE TO YOUR ENDORSEMENT No. 6350/XVIII—618, DATED THE 22ND DECEMBER, 1938, I HAVE THE HONOUR TO GIVE BELOW THE NUMBER OF PERSONS SUPPORTED BY THE DIFFERENT BRANCHES OF THE HANDLOOM WEAVING INDUSTRY:—

Type of hand-loom weaving.	No. of regular weavers.	No. of part time weavers.	Total No. of weavers.	Total No. of helpers.	Total No. of weavers and helpers.
* Cotton . . .	109,900	54,900	164,800	339,200	504,000
Silk . . .	49,500	2,100	51,600	103,000	154,600
Wool . . .	22,200	6,200	28,400	68,200	96,600
Total No. of weavers and helpers .					755,200

The information is based on the survey of 1935. As far as is known to this Department there has not been any appreciable change since then. It is not possible to get these figures verified annually.

(7) *Letter No. 423-I. & L.—39/3001, dated the 23rd January, 1939, from the Secretary, to the Government of the Punjab, Electricity and Industries Department, Lahore.*

Subject: NUMBER OF PERSONS SUPPORTED BY THE HANDLOOM WEAVING INDUSTRY IN ITS DIFFERENT BRANCHES DURING 1937-38.

With reference to your letter No. 1,345, dated the 6th December, 1938, on the subject noted above, I am directed to forward a statement containing the required information.

Statement for 1937-38.

	Number of weavers.	Number of looms.
Pure silk	2,000	1,500 to 1,800
Spun silk	4,000 to 5,000	3,600 to 4,500
Mixture of silk and cotton	500	450
Cotton	268,254	241,429
Artificial silk and staple fibre yarn	25,000	22,500

(8) *Letter No. 9483/11/G., dated the 8th March, 1939, from the Government of Bombay, General Department, Bombay.*

In reply to your letter No. 1345, dated the 6th December, 1938, I am directed to state that information as to the number of persons supported by the handloom industry in its different branches is not available and no approximate figures can also be given. The information with regard to the

* Includes weavers engaged in weaving art silk.

other sub-heads of the table of the Report of the Tariff Board under reference has already been supplied so far as available in the replies to questions Nos. 1 and 9 of the Tariff Board Questionnaire copies of which were forwarded to your Board under this Department letter No. 9483-II-D., dated the 21st July, 1938.

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- (9) *Letter No. 575-C., dated the 16th May, 1939, from the Government of Sind, Finance Department, Karachi.*

Subject: SERICULTURAL INDUSTRY—PROTECTION TO THE—

In reply to Mr. Mohd. Nasrullah's letter No. 1345, dated the 6th December, 1938, on the subject noted above, I am directed to state that as a detailed survey of the Handloom Industry in Sind has not been carried out, it is regretted that it is not possible to supply the information required by the Tariff Board.

65. Information regarding the number of filatures and filature basins.

- (1) *Letter from the Tariff Board, No. 1209, dated the 2nd November, 1938, to the Director of Industries, Madras.*

I am directed to invite a reference to Table XVI, on page 29 of the 1933, Report of the Tariff Board which gives particulars relating to production of silk. At the time of the last enquiry 500 was the figure given of the country reeling machines of one basin each. I am directed to request that the latest figure for the year 1937-38 may kindly be furnished to the Board as early as possible.

- (2) *Letter No. 1024D/38, dated the 9th November, 1938, from the Director of Industries, Madras.*

Reference: YOUR LETTER NO. 1209 OF THE 2ND NOVEMBER, 1938.

The latest figure of the number of country reeling machines of one basin each in the Province of Madras is 461 exclusive of the filature basins of the Kollegal Silk Filatures, Limited.

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- (3) *Letter No. 1337, dated the 5th December, 1938, from the Assistant Secretary, Tariff Board, to the Director of Sericulture, Jammu (Kashmir State).*

I am directed to invite your attention to Table XVI, on page 29 of the Tariff Board's last Report on Sericulture and to request that information in respect of the number at present of power-driven filatures and of the basins in each filature in Jammu may kindly be furnished to the Board as early as possible, preferably by telegram.

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- (4) *Telegram No. 858, dated the 9th December, 1938, from the Director of Sericulture, Jammu.*

Your letter 1337 number power-driven filatures at present working is two, one containing 96 other 11 basins all power-driven. No hand turning of reels not in force.

- (5) *Letter No. 1338, dated the 5th December, 1938, from the Assistant Secretary, Tariff Board, to the Director of Sericulture, Srinagar, Kashmir.*

I am directed to invite your attention to Table XVI, on page 29 of the Tariff Board's last Report on Sericulture and to request that information in respect of the number at present of power-driven filatures and of the basins in each filature in Kashmir may kindly be furnished to the Board as early as possible, preferably by telegram.

- (6) *Telegram No. 1245, dated the 12th December, 1938, from the Director of Sericulture, Srinagar, Kashmir.*

Your letter 1338 fifth December, number of power driven filatures at present working three number of basins 456.

- (7) *Letter No. 1338/68, dated the 14th December, 1938, from the Director of Sericulture, Srinagar, Kashmir.*

In inviting a reference to my telegram No. 1245, dated the 12th December, 1938, which has already been confirmed under this office endorsement No. 1246, dated the 12th December, 1938, I have the honour to state that from Table XVI, on page 29 of the Tariff Board's last Report on Sericulture, it will be seen that the number of power driven filatures then working in this province was 4 containing 992 basins in all. The reason why we are now working only 3 filatures with less number of basins is that we have had lately to cut off one filature owing to two of our boilers having been condemned for use by the Government Mechanical Engineer. A new filature is under construction at present in which 200 basins of modern type will be worked by power. This would be ready by June next, so that we shall have then 4 filatures with 656 basins working in the factory.

- (8) *Telegram No. 1379, dated the 13th December, 1938, from the Tariff Board, to the Director of Sericulture, Srinagar (Kashmir).*

Your telegram number of filatures and basins please wire what extension contemplated and within what period.

- (9) *Telegram, dated the 14th December, 1938, from the Director of Sericulture, Srinagar, Kashmir.*

Your telegram 1379 one filature of 200 basins is under construction and will be ready for operation by June next.

- (10) *Letter No. 1339, dated the 5th December, 1938, from the Assistant Secretary, Tariff Board, to the Director of Industries and Commerce, Mysore Government, Bangalore.*

I am directed to invite your attention to Table XVI, on page 29 of the Tariff Board's last Report on Sericulture and to request that the latest information in respect of the number of power-driven filatures in Mysore State and of the basins in each filature may kindly be furnished to the Board as early as possible, preferably by telegram.

- (11) *Letter No. A. I./88-89, dated the 12th December, 1938, from the Director of Industries and Commerce in Mysore, Bangalore.*

With reference to your letter No. 1339, dated the 5th December, 1938, I have the honour to state that there is only one power driven filature with 54 basins in Mysore and the number of basins in this filature will be increased to 200 basins within the next three months. This filature is owned and worked by the Mysore Silk Filatures, Ltd.

I hereby confirm the following telegram sent to you in reply to your above letter:

"Your letter 1339. One filature fifty-four basins and number of basins to be increased to two hundred basins in three months".

- (12) *Demi-official letter No. 1340, dated the 5th December, 1938, from Mohd. Nasrullah, Esq., B.A., Assistant Secretary, Tariff Board, to F. L. Silva, Esq., Kollegal, Coimbatore.*

I am desired by the Tariff Board to ask you kindly to let me know as early as possible the present number of basins actually installed in your filature at Kollegal and the probable time in which you hope to be able to complete the number of 150.

- (13) *Letter, dated the 10th December, 1938, from F. L. Silva, Esq., Kollegal, to Mohd. Nasrullah, Esq., B.A., Assistant Secretary, Tariff Board.*

Many thanks for your Demi-official letter No. 1340 of the 5th instant. The number of basins already installed in our filature is 76. Some more are now in course of erection and we expect to be able to complete our full quota of 150 by the end of February next.

66. List of Silk Mills in India.

- (1) *Demi-official letter No. 1298, dated the 28th November, 1938, from Mohd. Nasrullah, Esq., B.A., Assistant Secretary, Tariff Board, to J. N. Ghosh, Esq., M.A., Deputy Director of Statistics, Calcutta.*

We have obtained from your Commercial Library a copy of the blue book on large Industrial Establishments in India which pertains to the year 1935 but was issued in 1937. Mr. Roughton wishes to know whether any material has been collected for the next biennial issue and, if so, he would be glad to see it. If the proof of the next issue is ready that may also be kindly shown to the Board.

- (2) *Demi-official letter No. 18437, dated the 1st December, 1938, from J. N. Ghosh, Esq., M.A., Deputy Director of Statistics, Calcutta, to Mohd. Nasrullah, Esq., B.A., Assistant Secretary, Tariff Board.*

Will you kindly refer to your Demi-official No. 1298, dated the 28th November, 1938? The compilation of the Blue book on Large Industrial Establishments in India for 1937 is nearing completion and the first batch of compilation has already been sent to press for proof. I imagine, however, that Mr. Roughton is specially interested in silk mills and accordingly a list of silk mills (including filatures) compiled from the returns for 1937 is sent herewith. If the Tariff Board are interested in other classes of factories, a complete proof copy of the Blue book will be sent on receipt from press.

List of Silk Mills (including filatures) compiled from the returns for 1937, in India.

Provinces and Districts.	Names of Factories.	Average number of workers employed daily—1937.
Bengal—	Perennial.	
24-Parganas.	Bengal Silk Mill, 13, Ariff Road, Ulta-danga.	156
	The Calcutta Silk Manufacturing Co., Ltd., 23, Barrackpore Trunk Road, P. O. Sukchar.	306
	The Calcutta Silk Weaving Co., 1, Moti Mitter Lane.	73
	Swadeshi Industries, Ltd., P. O. Panihati.	385
	Coonwer Silk Mill, 30, Mission House Lane, Tollygunge.	198
Howrah—	The Calcutta Silk Mills, P. O. Lillooah.	57
	Total, Bengal (6)	1,175
Bombay—		
Ahmedabad . . .	Ahmedabad Fine Weaving Works, Raikhad	47
	Indian Tussore Weaving Factory, Rentiawadi, Ghee Kanta Road.	21
	Jaswant Weaving Factory, Ghee Kanta Road.	42
	Vijaya Weaving Works, Shahpur Road	18
	Gujarat Weaving Works, Ghee Kanta Road.	22
	Sutaria Silk Weaving Factory, Lunsawada	30
Bombay Island . . .	Ramlal Silk Mills, Delisle Road	63
	Indianese Silk Mill Co., Ltd., Colaba	102
	Bombay Silk Mills, Colaba Road	39
Surat	Ghantiwala Weaving Factory, Salabatpura	16
	Suryaprakash Weaving Factory	63
	Bahechardas Manekchand Kharwar Silk Weaving Factory, Limda Chowk.	44
	Mohanlal Maneklal Chevli Weaving Factory, Begumpura.	30

List of Silk Mills (including filatures) in India—contd.

Provinces and Districts.	Names of Factories.	Average number of workers employed daily—1937.
Bombay— <i>contd.</i>	Perennial— <i>contd.</i>	
Surat— <i>contd.</i>	Parmar Weaving Factory, Salabatpura .	25
	Garden Weaving Factory, Rawpura Tanki .	60
	Ramchand Vanamalidas Kadiwala Weaving Factory, Sagrampura.	46
	Champaklal & Bros., Weaving Factory, Buranpuri, Bhagoi.	43
	The Kinkhabwala Weaving Factory, Near Clock Tower.	15
	Kohinoor Weaving Factory, Mahidharpura, Bandugara.	23
	Prabhudas Harkisondas Weaving Factory, Pratibandara Sheri, Mancharpura.	22
	Hathiwala Silk Mill, Tilok Maidan . . .	72
	Kohinoor Weaving Factory, Division B, Mahidharpura.	22
	Nathooobhai Vithaldas Weaving Factory, Begumpura.	18
	Kashiram Jagdish Weaving Factory Salabatpura.	14
	N. V. Shah & Co.'s Weaving Factory, Mahidharpura.	47
	Desai Silk Mill, Desai Shori, Sagrampura.	17
	Chunilal Harjiwandas Weaving Factory, Sagrampura.	20
	Prabhudas Gangadas Silk Weaving Factory, Rampura Road.	49
	Narendra Silk Mill, Sagrampura . . .	21
	Dalpatram Chhabildas Weaving Factory, Salabatpura.	7
	Maneklal Gopaldas Chevli Silk Factory .	17
	Bhukandas Dayabhai Chevli Silk Factory, Begumpura.	12

List of Silk Mills including filature in India—contd.

Provinces and Districts.	Names of Factories.	Average number of Workers employed daily—1937.
Bombay—concl'd.	Perennial—cont'd.	
Surat—concl'd.	Lalubhai Gholabhai Masruwala Silk Factory.	18
	Sanmukhadas Jaikisandas Weaving Factory, Inderpura.	16
	Amritlal Jaikishandas Silk Weaving Factory, Indupura.	10
	Ganeshbhai Dalubhai Silk Weaving Factory.	16
	Nagindas Bhayabhai Chovli Silk Weaving Factory, Begumpura.	13
	Kalidas Hargovindas Silk Weaving Factory, Indupura.	16
	Shambhulal Chainanlal & Bros.' Silk Weaving Factory, Salabatpura.	18
	Tusidas Chunilal Ghariwala Weaving Factory, Salabatpura.	20
	Nerbheram Purusottamdas Weaving Factory, Salabatpura.	19
	Ghariwala Weaving Factory, Sagrampura.	13
	Narendeo Motiram Silk Factory, Salabatpura.	21
	Ganesh Weaving Factory	11
	Ratilal Lalubhai Ghantiwala Silk Mill, Salabatpura.	16
	Dullabhram Ranjubhai Silk Factory, Sagrampura.	(a)
	Nagindas Harjiwandas Weaving Factory, Sagrampura.	15
	Bunki Silk Factory, Sagrampura . . .	17
	Jaikisandas Narandas Weaving Factory, Chevli Sheri, Sagrampura.	16
	Surat Silk Goods Mill, Salabatpura . .	131
	Total, Bombay (50) . . .	1,473

(a) Information not available.

List of Silk Mills (including filatures) in India—contd.

Provinces and Districts.	Names of Factories.	Average number of workers employed daily—1937.
<i>Perennial—contd.</i>		
Madras—		
East Godavari—	Subramanya Silk Factory, Peddapuram .	54
	Sri Dhanalakshmi Silk Factory, Peddapuram.	28
	Sri Rama Silk Factory, Peddapuram .	63
	Sri Lakshmi Silk Manufacturing Works, Peddapuram.	170
Coimbatore—	Prasanna Nageswara Twisting Mills, Kollegal.	19
Bellary—	Sri Lakshmi Venkateswara Silk Weaving Factory, Rayadrug.	135
	Total, Madras (6) .	469
Punjab—		
Lahore—	The Punjab Textile Mills, Lahore . .	42
Ludhiana—	The Bal Silk Weaving Co., Ltd. . .	169
Amritsar—	Model Silk Weaving Mills . . .	77
	Amritsar Rayon & Silk Mills, Amritsar .	183
	Parkash Textile Mills	61
	Total, Punjab (5) .	532
Sind—		
Sukkur	Sugan Mills, Rohri	37

List of Silk Mills (including filatures) in India—contd.

Provinces and Districts.	Names of Factories.	Average number of workers employed daily—1937.
United Provinces—	Preennial— <i>contd.</i>	
Saharanpur	Patel Mills, Ltd.	35
Benares	Swadeshi Silk & Ribbon Mills Co., Benares .	24
	Total, United Provinces (2) .	59
Kashmir—		
Jammu	Jammu Sericulture Dept.	201*
Srinagar	Kashmir Sericulture Dept.	1,502*
	Sarwananda Rains, Srinagar	100†
	Commercial and Industrial Corporation .	10†
	United Brothers	7†
	Sopru House, Srinagar	7†
	Kashmir Silk Weaving Co.	40†
	Amritsar Silk Factory	25†
	Commercial Union Weaving Co., Srinagar .	75†
	Artex and Co.	20
	Kaula Bros.' Corporation	10†
	Total, Kashmir (11) .	1,997
Hyderabad—		
Hyderabad City.	The Hyderabad Silk Mills Ltd., Azamabad .	30
Aurangabad.	Abdul Hamid Khan Weaving Mills . . .	50
	Total, Hyderabad (2) .	80

* Owned by State Darbars.

† Not worked by mechanical power.

List of Silk Mills (including filatures) in India—contd.

Provinces and District.	Names of Factories.	Average number of workers employed daily—1937.
	I.—TEXTILES.	
	<i>Silk Mills (including filature).</i>	
Mysore—	Perennial—contd.	
Bangalore	Sri Rama Silk Throwing Factory	350
	Sri Rama Weaving Shed	90
	J. H. Annappa's Weaving Factory	12
	Sri Maruthi Weaving Factory	12
	Thimmappa Byatappa Bidaro Silk Weaving Factory.	16
	Shanmuganda Weaving Factory	22
	Sundaka Weaving Factory	25
	Ananda Weaving Factory	18
	Sri Anjaneya Weaving Factory	83
	Khoday Chicknagusa Silk Throwing and Rametta Throwing Factory.	50
	M. Srinivasa and Co.	46
	Siddeswara Weaving Factory, Doddballapur	10
	Patel Hamimegowda Weaving Factory, Doddballapur.	15
	Mallappa's Weaving Factory, Doddballapur	10
	Goapala Setty Brothers, Doddballapur . .	10
	Amavasai Neelakantappa's Weaving Factory, Doddballapur.	10
	Sri Rama Weaving Factory, Doddballapur .	10
	Bisalatti Weaving Factory, Doddballapur .	38
	Kenkereo Weaving Factory, Doddballapur .	10
	Parvathia & Brothers, Weaving Factory, Doddballapur.	10
	Eswariah's Weaving Factory, Doddballapur	10
	Chikkahanumappa's Weaving Factory, Doddballapur.	10

List of Silk Mills (including filatures) in India—concl'd.

Provinces and Districts.	Names of Factories.	Average number of workers employed daily—1937.
Mysore— <i>cont'd.</i>	Perennial— <i>concl'd.</i>	
Bangalore— <i>cont'd.</i>	Chowdappa's Weaving Factory, Doddballapur.	10
	Chikkanna & Brothers, Doddballapur .	20
	Rangappa's Weaving Factory, Doddballapur.	15
	Sri Laxmi Venkateswara Silk Throwing Factory.	30
	Sri Champakadhama Silk Throwing Factory.	94
Bangalore	Srinivasa Weaving Factory	17
	Muddaiya & Sons, Silk Winding and Twisting Factory.	67
	Silk Twisting Factory of Mr. Khodey Eswarasa.	100
	Bangalore Silk Filature and throwing Mills.	45
Mysore	{ Mysore Government Silk Filature . .	80*
	{ Government Silk Weaving Factory . .	100*
	Total Mysore (33) .	1,445
	Total Perennial (116) .	7,267
	Grand Total (116) .	7,267

(3) Letter No. 1342, dated the 4th December, 1938, from the Assistant Secretary, Tariff Board, to the Directors of Industries, Bengal, Bombay, Madras, Punjab, Sind, United Provinces, Jammu and Kashmir, Hyderabad and Mysore.

I am directed to enclose an extract relating to your Province/State from the list of silk mills compiled by the Director General of Commercial Intelligence and Statistics in India from the returns furnished to him for the year 1937. I am to enquire whether the list is complete and, if so, which of the mills are engaged in producing:—

- (1) pure silk goods;
- (2) pure spun silk goods;
- (3) pure artificial silk goods;
- (4) mixtures of silk and spun silk with other textile materials; and
- (5) artificial silk mixtures.

I am also to enquire as to how many of them are power driven.
The favour of a very early reply is requested.

*Owned by State Darbars.

(4) Letter No. 25687-G., dated the 15th December, 1938, from the Director of Industries, Bengal, Calcutta.

With reference to your letter No. 1342, dated the 4th December, 1938, I send you herewith a statement furnishing the information desired by you in regard to silk mills in Bengal. All the mills are driven by power.

A statement of silk mills in Bengal showing the number of looms at work in each mill and the kind of articles produced.

Name of the Mill and Address.	Number of looms at work on				
	Pure silk goods.	Pure spun silk goods.	Pure artificial silk goods.	Mixture of silk and spun silk with other textile materials.	Artificial silk mixture.
1. Bengal Silk Mills Ltd., 13, Ariff Road, Calcutta.	21	Nil.	13	12	39
2. Calcutta Silk Mills, Lilooah . . .	Nil.	Nil.	Nil.	18	Nil.
3. Calcutta Silk Manufacturing Co., Ltd., Barrackpore Trunk Road, (24-Parganas).	Nil.	Nil.	200	Nil.	Nil.
4. Swadeshi Industries Ltd., P. O. Panihati, 24-Parganas.	Nil.	Nil.	124	Nil.	Nil.
5. Calcutta Silk Weaving Co., 47, Muraripukur Road, Calcutta.	Nil.	Nil.	44	Nil.	Nil.
6. Messrs Coonwer Mill, Tollygunge, declined to supply any information regarding looms working on different variety of yarn.					

(5) Letter No. Eng. 66/1307, dated the 20th December, 1938, from the Director of Industries, Bombay.

I have the honour to acknowledge receipt of your letter No. 1342, dated the 4th instant and to state that the same is receiving attention.

(6) Letter, dated the 21st June, 1938, from the Chhoi Silk Mill Company, Limited, Bombay, to the President, Tariff Board.

As desired we have the honour to send you herewith a list of silk mills existing in Bombay to our knowledge.

Silk Mills in Bombay Presidency.

1. National Art Silk Mills, Ltd., Kasturchand Mill Compound, Dadar, Bombay.

2. Shreeo Laxmi Silk Mills, Kasturchand Mill Premises, Dadar, Bombay.

3. Bepin Silk Mills, Kasturchand Mill Compound, Dadar, Bombay.

4. The New Era Textile Mills, Atlas Mill Compound, Reay Road, Bombay.

5. Habib Silk Mills, Atlas Mill Compound, Reay Road, Bombay.

6. Panalal Silk Mills, Atlas Mill Compound, Reay Road, Bombay.

7. Chhoi Silk Mills, Ltd., Sopari Baug Road, Parel, Bombay.
8. Sassoon and Alliance Mills Co., Ltd., 59, Forbes Street, Fort, Bombay.
9. Mahendra Silk Mills, Ltd., Ambernath Road, Kalyan.
10. Kanda Silk Mills, Ltd., Tulsi Pipe Road, Parel.
11. Abdul Karim Silk Mills, Dharavi.
12. Ramlal Silk Mills, Mathradas Mill Compound, Delislo Road, Bombay.
13. Bharat Silk Mills, Premji Petit Mills Compound, Mazagoan.
14. Swastika Silk Wvg. Co., Lower Parel, Bombay.
15. Mahalaxmi Silk Mills, Atlas Mill Compound, Reay Road, Bombay.
16. Venus Textile Works, Ltd., Fremji Petit Mill Compound, Mazagaon.
17. Manhar Mills, Ltd., Fremji Petit Mill Compound, Mazagoan.
18. Seth Ismail Khucal Wvg. Factory, Lkhand Chawl, Madanpura, Rippon Road, Bombay.
19. Textile Finishing Co., Bomauij Petit Mill Compound, Jacob Circle, Bombay.
20. Habib Silk Mills, Atlas Mill Compound, No. 250, Reay Road, Bombay.
21. New Mahalaxmi Silk Mills, Mathradas Mill Compound, Delislo Road, Bombay.
22. Madhubhai Vithaldas Wfg. Factory, Begumpura, Danapith, Surat.
23. Kashiram Jagdish Wvg. Factory, Salabatpura, Khangad Sheri, Surat.
24. N. V. Shah & Co., Shah Wvg. Factory, Manchapura, Karadi Shay, Surat.
25. Hindoostan Silk Mills, Ltd., Office Hamam Bldg., Hamam Street, Mills, Kurodi, Near Sewri.
26. Bombay Silk Mills, Colaba, Offices, Lamington Road.
27. Indianese Silk Mills, Colaba.
28. Balubhai Chaganlal & Co., Haripura Sukhadia Sheri, Surat.
29. Dayaram Harkisandas Chavli, Begumpura, Surat.
30. Kalidas Trikandas Chavli, Chelvi Wvg. Factory, Salabarpura, Surat.
31. Bechardas Manekechand Kharvat, Limbdi Chawls, Surat.
32. Tho Garden Weaving Factory, M/S. Chandulal & Co., Rampura, Surat.
33. Prabhudas Gagandas, Rampura Parsi Sheri, Surat.
34. Fakirmahomed Janmahomed, Gopipura, Momnawad, Surat.
35. S. Harakechand Tapidas, Karwar Road, Surat.
36. Kaikhusroo Sorabji Joshi, Prop. Silk Wvg., Factory Turkiwad, Surat.
37. Sheth Hathiwalla Wvg. Factory, Begumpura Sanki, Surat.
38. Garden Wvg. Factory, Rampura Tauki, Surat.
39. Ginwala Silk Mill, Ankleshwar, Dist. Broach.
40. Sutari Silk Wvg. Factory, Ahmedabad.
41. Ahmedabad Silk and Cotton Mfg. Co., Ltd., Ahmedabad.
42. New Coronation Mills, Ahmedabad. (Silk and Woollen Cloth.)
43. Sabhugar Silk Mills. M.A., Tata, Sind. (Dist. Karachi.)
44. Chandiram Wvg. Factory, Poori.
45. Pahlaj Wvg. Factory, Poori.
46. Khushiram Yidandas Caabaria, Daiki Street, Shikarpur.
47. Chimandas Menghraj, Mansharogate, Shikarpur.
48. Hariram Silk Factory, Near Big Tank, Shikarpur.
49. Gangaram Silk Factory, Near Big Tank, Shikarpur.
50. Raja Bahadur Motilal Poona Mills, Poona.
51. Courtaulds (India), Ltd., Lady Jamshedji Road, Dadar.

(7) Letter No. 2606-D.138, dated the 16th January, 1939, from the Director of Industries and Commerce, Madras.

Reference: YOUR LETTER NO. 1342, DATED THE 4TH DECEMBER, 1938.

I enclose herewith a complete list of silk mills in the Madras Presidency with particulars required.

Serial No.	Name of factory.	Qualities of goods manufactured.	Hand or power driven.	Average No. of workers employed daily (1937).
1	Subramanya Silk Factory, Peddapuram.	The Factory is engaged in preparing thrown silk. It is prepared into warps and dyed. Ready made warps are supplied to weavers for weaving into cloth.	The Proprietor does not state whether the machines are hand driven or power driven.	54
2	Sri Dhanalakshmi Silk Factory, Peddapuram.	The factory prepares thrown silk. Silk and spun silk goods are manufactured.	Machines are hand-driven.	28
3	Sri Rama Silk Factory, Peddapuram.	The factory produces (1) Pure silk goods, (2) Pure spun silk goods, (3) Mixtures of silk and spun silk with other Textile materials, (4) Kashmir silk goods.	The machines are at present hand driven. The proprietor states that they propose to use power during 1939.	63
4	Sri Lakshmi Silk Manufacturing Works, Peddapuram.	The mill produces (1) Pure silk goods, (2) Pure spun silk goods. Thrown silk is prepared in the mill. To a small extent silk cloth is produced on power looms. Most of the silk and spun silk goods are prepared on handlooms.	Machines are hand and power driven.	170
5	Prasanna Nageswara Twisting Mills, Kollegal.	The factory is engaged in preparing thrown silk yarn out of Mysore, Japan and Chinese raw silk.	Machines are power driven.	35
6	Sri Lakshmi Venkateswara Silk Weaving Factory, Rayadrug.	Pure silk, pure spun silk and mixtures of silk and spun silk cloths are produced.	Ditto	135
7	P. R. Thimmappa's Silk Throwing Factory, Dharmavarani.	Prepares thrown silk only	Ditto	..
8	The Kollegal Silk Filatures, Ltd., Mudigundam, Kollegal.	Reels raw silk out of cocoons.	Steam power driven mill.	..

(8) Letter No. I. A. 33-494/2147, dated the 8th February, 1939, from the Director of Industries, Punjab, Lahore.

With reference to your letter No. 1342, dated the 4th December, 1938, I have the honour to enclose herewith a statement of silk mills in the Punjab containing the information required by you.

Statement of Silk Mills working in the Punjab.

Name of factory.	Type of goods manufactured.	Whether power driven or not.	Number of workers employed.	Remarks.
(1) Kundan Cloth Mills, Ltd., Ludhiana.	Artificial silk and artificial silk mixtures.	Power driven.	About 40	
(2) Ball Silk Weaving Co., Ltd., Ludhiana.	Pure spun silk, artificial silk and artificial silk mixtures.	Both power and hand looms.	About 50	
(3) Empire Silk Mills, Ludhiana.	Artificial silk and artificial silk mixtures.	Power driven.	About 15	
(4) Brij Weaving Factory, Ludhiana.	Artificial silk mixtures.	Hand looms.	About 30	
(5) Dosaj Weaving Factory, Ludhiana.	Pure silk, pure spun silk, artificial silk, and artificial silk mixtures.	Do.	About 25	
(6) Noor Mohd. Din Mohd, Wakt Ganj, Ludhiana.	Artificial silk and artificial silk mixtures.	Do.	About 30	
(7) Rashid Weaving Factory, Ludhiana.	Ditto.	Do.	About 25	
(8) Munsha Weaving Factory, Ludhiana.	Ditto.	Do.	About 50	
(9) Abul Rahem Weaving Factory, Ludhiana.	Ditto.	Do.	About 40	
(10) Benjamin Weaving Factory, Ludhiana.	Artificial silk mixtures of silk and spun silk with other textile materials and artificial silk mixtures.	Both power and hand looms.	About 20	
(11) Modern Trading Co., Ludhiana.	Artificial silk and artificial silk mixtures.	Hand looms.	About 50	
(12) Makhan Lal Weaving Factory, Ludhiana.	Ditto.	Both power and hand looms.	About 32	
(13) Amritsar Rayon and Silk Mills Ltd., Amritsar.	Artificial silk.	..	342	
(14) Mehra Textile Mills, Amritsar.	Ditto.	..	214	
(15) Sehgal Weaving Mills, Amritsar.	Artificial silk and staple fibre.	..	30	

Statement of Silk Mills working in the Punjab.—contd.

Name of Factory.	Type of goods manufactured.	Whether power driven or not.	Number of workers employed.	Remarks.
(16) Mohan Manufacturing and Trading Co., Amritsar.	Artificial silk . .	..	8	
(17) Hari Ram Pura Chand, Haripura, Amritsar.	Ditto . .	..	150	
(18) Parkash Textile Mills Hide Market, Amritsar.	Ditto . .	..	25	The factory manufactures silk goods only for 4 months and for the remaining year it is engaged in the manufacture of woollen goods.
(19) Model Silk and Weaving Mills, Kaulsar, Amritsar.	Spun silk . .	..	100	The factory manufactures silk goods only for 3 months and for the remaining year it is engaged in the manufacture of woollen goods.
(20) Bharat Udhar Manufacturing Co., Amritsar.	Spun silk . .	..	20	The factory manufactures silk goods only for 6 months and for the remaining year it is engaged in the manufacture of woollen goods and other fabrics.
(21) The Punjab Weaving Factory, Railway Road, Sialkot City.	Pure silk and artificial silk.	Both power and hand looms.	80	
(22) The Popular Weaving Mills, College Road, Sialkot City.	Pure spun silk .	Hand looms .	32	
(23) Punjab Textile Mills, Lahore.	....	Closed working.	..	

(9) *Letter No. G. (8) 1/12987 of 1938, dated the 16th December, 1938, from the Assistant Director of Industries, Sind, Karachi.*

With reference to your letter No. 1342, dated the 4th December, 1938, regarding list of silk mills compiled by the Director General of Commercial Intelligence and Statistics in India from the returns furnished to him for the year 1937, I have the honour to state that there are three silk factories at Rohri as given below and not one as shown in your list:—

- (1) Sagan Mills, Rohri. (District Sukkur.)
- (2) Pahlaj Silk Factory, Rohri. (District Sukkur.)
- (3) Chandiram Weaving Factory, Rohri. (District Sukkur.)

Only Sugar Mills is run by power and that all produce both pure and mixed silk goods.

(10) *Letter No. 22268/I-VIII—S.-4, dated the 4th January, 1939, from the Director of Industries and Commerce, United Provinces, Lucknow.*

With reference to your letter No. 1342, dated the 4th December, 1938, I have the honour to say that:—

- (1) the two mills are the only silk mills, i.e., power driven existing in the province,
- (2) They make spun silk goods.
- (3) There are no hand woven mills in the province but there are some small factories where a few handlooms are worked under the control of a Managing Proprietor.

2. If the Board is interested in the information the names of such factories will be ascertained and communicated later.

(11) *Letter No. 2416, dated the 16th January, 1939, from the Director of Commerce and Industries Department, Hyderabad (Deccan).*

With reference to your letter No. 1342, dated the 4th December, 1938, I have the honour to inform you that there are four power driven mills in Hyderabad State working on a small factory system, the particulars of which are given below:—

Serial No.	Place.	Name of the Factory.	Average No. of worker employed daily during 1937.	Remarks.
1	Azamabad, Hyderabad City.	The Hyderabad Silk Mills Ltd.	30	These Mills are engaged in producing spun silk, staple fibre goods and also the mixture of both.
2	Sultan Bazar, Hyderabad.	The Bhagyanagar Weaving Mills.	20	These Mills are engaged in producing spun silk, artificial silk, staple fibre and also cotton goods.
3	Aurangabad	Abdul Hamid Khan Weaving Mills.	50	These Mills are engaged in producing silk, artificial silk, staple fibre yarn and woollen goods.
4	Aurangabad	Bashir Silk Factory.	20	These Mills are engaged in producing spun silk and staple fibre goods.

(12) Letter No. C. 1-412/37-38, dated the 25th December, 1938, from the Director of Industries and Commerce in Mysore, Bangalore.

With reference to your letter No. 1342, dated the 4th December, 1938, I have the honour to forward herewith a complete statement showing the names and silk mills in the State, the average number and operatives employed daily and the description of goods manufactured in them.

All these mills are power driven.

SILK MILLS IN THE STATE.
(Bangalore District, Bangalore.)

Serial No.	Name of the Factory.	Average No. of operatives employed daily.	Description of goods manufactured.
1.	Sri Rama Silk Throwing Factory	350	Pure silk goods.
2.	Sri Rama Weaving Shed	90	Pure silk goods.
3.	J. H. Annappa's Weaving Factory	12	Pure silk goods.
4.	Sri Maruthi Weaving Factory	12	Pure silk goods.
5.	Thimmappa Byatappa Bidere Silk Weaving Factory	16	Pure silk goods.
6.	Sundaka Weaving Factory	25	Pure silk goods.
7.	Ananda Weaving Factory	18	Pure silk goods.
8.	Sri Anjaneeya Weaving Factory	83	Pure silk goods.
9.	Kabadi Chiknagusa Silk and Lametta Throwing Factory	50	Silk throwing.
10.	M. Srinivasa & Co.	48	Spun silk goods.
11.	Sri Champakadhama Weaving Factory	94	Pure silk goods.
12.	Muddiah & Sons, Silk Winding and Twisting Factory	67	Silk throwing.
13.	Srinivasa Weaving Factory	17	Pure silk goods.
14.	Khoday Eswara's Silk Throwing Factory	100	Silk throwing.
15.	Bangalore Silk Filature	45	Silk throwing.
16.	Seshachalam Weaving Factory	10	Pure silk goods.
17.	Sri Lakshminenkateswara Silk Throwing Factory	30	Silk throwing.

Bangalore District, Dosballapur.

1.	Sri Siddeswara Weaving Factory	12	Spun silk and cotton goods.
2.	Patel Hanumegowda's Wg. Factory	15	Pure silk and spun silk goods.
3.	Mallappa's Weaving Factory	10	Spun silk goods.
4.	Gopala Setty & Bros. Wg. Factory	8	Pure silk goods.
5.	Amavasai Neelakantappa's Wg. Factory	12	Pure silk goods.
6.	Sri Rama Weaving Factory	10	Goods of cotton mixed with artificial silk.

Serial No.	Name of the Factory.	Average No. of operatives employed daily.	Description of goods manufactured.
7.	Bisulahalli Weaving Factory .	10	Spun silk goods.
8.	Koukore Weaving Factory .	10	Pure silk and spun silk goods.
9.	Parvathiah's Weaving Factory	10	Spun silk goods and goods of cotton mixed with artificial silk.
10.	Easwarah's Weaving Factory .	10	Spun silk goods.
11.	Chikka Hanumappa's Weaving Factory	10	Spun silk and cotton goods.
12.	Kattani Chowdappa's Weaving Factory	10	Pure silk goods.
13.	Chikkanna & Bros., Weaving Factory	20	Pure silk goods.
14.	T. K. Thimmiah's Weaving Factory	10	Pure silk and spun silk goods.
15.	Shampur Ramachandriah's Weaving Factory	10	Pure silk goods.
16.	Kesavamurthy's Weaving Factory	10	Pure silk and spun silk goods.
17.	Gru Sankariah's Weaving Factory	10	Spun silk goods and goods of cotton mixed with artificial silk.
18.	Bisalahalli Gangadhariah Weaving Factory	12	Pure silk and spun silk goods.
19.	K. V. Lakshminarayaniah's Weaving Factory	10	Spun silk goods and goods of cotton mixed with artificial silk.
20.	Sri Radhakrishna Silk Throwing Factory	14	Silk reeling, twisting and winding.
21.	D. Thimmiah's Weaving Factory	8	Spun silk goods.
22.	K. C. Andinarayanaiya's Weaving Factory	10	Spun silk goods.

Mysore District.

1.	Government Silk Weaving Factory	96	Pure silk goods.
2.	Mysore Silk Filatures, Ltd., Mysore	123	Pure silk twisting.
3.	Mysore Silk Filatures, Ltd., (T. Narasippur)	75	Pure silk twisting.
4.	Silk Throwing and Weaving Factory, Mambally (Yelradour Taluk)	7	Filature silk goods.

67. Silk nets.

(1) *Endorsement No. 341-T. (28)/38, dated the 15th November, 1938, from the Government of India, Department of Commerce, New Delhi.*

The undermentioned papers are forwarded to the Secretary, Tariff Board, Calcutta, for information and any action that may be considered necessary on them.

List of papers forwarded.

Demi-official letter from Sir Thomas Ainscough, dated the 1st November, 1938, with enclosure.

Enclosure.

Copy of Demi-official letter from Sir Thomas Ainscough, H. M. Trade Commissioner in India, dated the 1st November, 1938.

With reference to our conversation yesterday, I now enclose copy of a letter received from Messrs. John Heathcoat & Co., the well-known silk manufacturers and warehousemen of 34, Fore Street, London, E.C. 2, from which you will observe that the silk nets manufactured by them are assessed to import duty under Item 48(c), which is a protective section of the Tariff although there is at present no manufacture of such goods in India. Messrs. John Heathcoat & Co., therefore submit that it would be only logical to grant a preference on this item to bring it into line with the preference enjoyed on rayon and cotton nets.

The Collector of Customs at Calcutta confirms that these silk nets are in fact assessed under Item 48(c) which is a protective section. He also confirms that there is at present no manufacture of such goods in India. In these circumstances, I shall be glad if the Government of India will investigate this case with a view to the adjustment of the present anomaly in the Tariff and the removal of silk nets into a category, other than protective which would give them the advantage of a 10 per cent. preference as is enjoyed by competitive rayon and cotton nets.

While, as we both know, the question of preferences is the subject of the Indo-British negotiations, I think you will admit that—quite irrespective of the question of preference—silk nets should be removed from the protective schedule and made subject to the general revenue tariff.

Copy of letter, dated the 11th October, 1938, from Messrs. John Heathcoat & Co., silk manufacturers and warehousemen, 34, Fore Street, London, E.C. 2.

We are manufacturers of Nets and Tulle made of either silk, Rayon and Cotton, and sometimes mixtures of these yarns.

A preference is granted by the Indian Customs Authorities on Rayon and Cotton Nets, but there is no preference on Nets made of Silk. Small cuttings of this class of goods are enclosed, and in view of the fact that they are not made in India we are wondering if there is any possibility of a preference being granted to British Manufacturers so as to bring them into line with the Rayon and Cotton Nets.

Presumably the Silk Nets are dutiable under Tariff Item No. 48 "Fabrics not otherwise specified". The nature of the duty is described as "protective", but as this class of goods is not made in India it is difficult to see how the duty can be described as "protective".

The samples enclosed are made of silk. One is a Tulle used mainly for trimming purposes or for the making of veils. The second is what is known as a Bridal Tulle and is used almost exclusively for making Bridal or Confirmation Veils. The third pattern is a Net used for making Evening Dresses or Dance Frocks.

We shall be grateful if you can use your influence with the Indian Customs Officials to extend preference to British Manufacturers of Silk Nets, which could be done without harm to Indian Manufacturers.

- (2) *Demi-official No. 1285, dated the 25th November, 1938, from F. I. Rahimtoola, Esq., President, Tariff Board, to G. N. Bower, Esq., B.A., Collector of Customs, Calcutta.*

Will you kindly let me know under what item of the Customs Schedule silk nets which are generally used for trimming purposes and for veils are classified and whether British and non-British are shown separately? I would also like to have the recent c.i.f. prices and the import figures if available and such other information that you think likely to prove useful to the Board in this connection.

- (3) *Demi-official No. 792, dated the 6th December, 1938, from G. N. Bower, Esq., B.A., Collector of Customs, Calcutta, to F. I. Rahimtoola, Esq., President, Tariff Board.*

Your Demi-official No. 1285, dated the 25th November, 1938.

2. Silk nets for trimming purposes are ordinarily 12" or less wide and are classifiable as "haberdashery" under item 52, Indian Customs Tariff. Silk nets for veiling purposes are ordinarily 36" or more in width and are assessable as "Silk fabrics" under item 48(c).

3. No importations of either descriptions have, however, been noticed at this port. If imported they would be recorded undistinguished in the trade returns under the heads "Haberdashery and Millinery—other sorts" and "Silk manufactures—other sorts" respectively.

- (4) *Demi-official letter No. 1286, dated the 25th November, 1938, from F. I. Rahimtoola, Esq., President, Tariff Board, to P. N. Chandavarkar, Esq., Collector of Customs, Bombay.*

Will you kindly let me know under what item of the Customs Schedule silk nets which are generally used for trimming purposes and for veils are classified and whether British and non-British are shown separately? I would also like to have the recent c.i.f. prices and the import figures, if available, and such other information that you think likely to prove useful to the Board in this connection.

- (5) *Demi-official C. No. 1569/38, dated the 5th December, 1938, from P. N. Chandavarkar, Esq., Collector of Customs, Bombay, to F. I. Rahimtoola, President, Tariff Board.*

SILK NETS—ASSESSMENT OF—

Please refer to your Demi-official No. 1286, dated the 25th November, 1938.

2. Silk nets are classified under item 48(c) of the Tariff for purposes of assessment. They are not separately specified for statistical purposes, but are included under the head "Silk manufactures—other sorts" Figures of imports are not, therefore, available.

3. It is reported that a few stray pieces of silk veiling are sometimes imported from England and the c.i.f. price varies from 3½d. per yard to 6½d. per yard of 17/18" width.

- (6) *Letter No. 1329, dated the 3rd December, 1938, from the Tariff Board, to His Majesty's Senior Trade Commissioner for India, Fairlie House, Fairlie Place, Calcutta.*

I am directed to say that the Tariff Board has received from the Government of India a representation from the firm of Messrs. John Heathcoat and Company, Silk Manufacturers, London, regarding the duty leviable on silk net imported into India from England. I am to enquire whether you desire to be heard on their behalf or to send any other representation to state their case. If so, 10-30 a.m., on Wednesday the 7th December, would be suitable to the Board at its office at 1, Council House Street, Calcutta. If this date is not convenient, the Board could give another date in the near future as may be convenient to you.

- (7) *Letter No. 1632/38, dated the 5th December, 1938, from H. M. Trade Commissioner in India, Fairlie Place, Calcutta.*

In reply to your letter No. 1329 of the 3rd December, relative to the representation, transmitted by the Commerce Department of the Government of India, from Messrs. John Heathcoat and Company, Silk Manufacturers, 34, Fore Street, E.C.2, on the subject of the protective duty leviable on silk net imported into India from the United Kingdom, I beg to inform you that I have nothing further to add to my Demi-official letter on the subject addressed to the Joint Secretary of the Commerce Department and, therefore, do not see that any useful purpose would be served by my appearance before the Board.

For your convenience, I enclose a further copy of that letter together with a copy of the original representation* received by me from Messrs. John Heathcoat and Company with attached three typical samples of the nets concerned.

Letter, dated the 1st November, 1938, from Sir Thomas M. Ainscough, C.B.E., His Majesty's Senior Trade Commissioner in India, Maiden's Hotel, Delhi, to N. R. Pillai, Esq., C.B.E., Joint Secretary to the Government of India, Commerce Department, New Delhi.

With reference to our conversation yesterday I now enclose copy of a letter* received from Messrs. John Heathcoat & Co., the well-known silk manufacturers and warehousemen of 34, Fore Street, London, E.C. 2, from which you will observe that the silk nets manufactured by them are assessed to import duty under Item 48(c), which is a protective section of the Tariff although there is at present no manufacture of such goods in India. Messrs. John Heathcoat & Co., therefore submit that it would be only logical to grant a preference on this item to bring it into line with the preference on this item to bring it into line with the preference enjoyed on rayon and cotton nets.

The Collector of Customs at Calcutta confirms that these silk nets are in fact assessed under Item 48(c) which is a protective section. He also confirms that there is at present no manufacture of such goods in India. In these circumstances, I shall be glad if the Government of India will investigate this case with a view to the adjustment of the present anomaly in the Tariff and the removal of silk nets into a category, other than protective, which would give them the advantage of a 10 per cent. preference as is enjoyed by competitive rayon and cotton nets.

While, as we both know, the question of preferences is the subject of the Indo-British negotiations, I think you will admit that—quite irrespective of the question of preference—silk nets should be removed from the protective schedule and made subject to the general revenue tariff.

* Printed as enclosure to endorsement No. 341-T. (23)/38, dated the 15th November, 1938 from the Government of India, Commerce Department.